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ABSTRACT

The sixth grade instructional unit, part of a field-tested grade school level career education series, is designed to assist learners in understanding how present experiences relate to past and future ones. Before the main body of the lessons is described, field testing results are reported and key items are presented: the concepts, the estimated time for delivering the lessons, the vocabulary introduced, the resources required, and the instructor preparation tasks. Instructional procedures are presented in three sections--an introduction, learners' tasks, and a summary. Some supplemental activities are presented, strategy and resource profiles are provided, and assessment procedures outlined. Intended to develop skills in buying products and in home improvement and maintenance, the unit provides experiences in discovering product information, identifying misleading advertising, mail order buying, and in maintaining and improving the home. The 10-hour unit, suitable for group instruction, relates primarily to the subject areas of math, art, and language arts. Sample classroom materials, forms, tests, and transparency masters are included. (NH)

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SKILL SCHEMES

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SKILL SCHEMES

SIXTH GRADE

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ARIZONA STATE DEPARTMENT OF EDUCATION
W. P. SHOFSTALL, PH.D.
SUPERINTENDENT OF PUBLIC INSTRUCTION

May 1973

Studies over the past five years within Arizona show parents as the most influential sources of the student's occupational and educational choices. Because of parent influence and the community interest in career education, it is strongly recommended that the content of this unit be reviewed with parent advisory groups.

CAREER EDUCATION RATIONALE

"Reinforcing the three R's - relevance through Career Education" is the refrain echoing across the country today.

Career Education combines the academic world with the world of work. It must be available at all levels of education from kindergarten through the university. A complete program of Career Education includes awareness of the world of work, broad exploration of occupations, in-depth exploration of selected clusters, and career preparation for all learners. This calls for all basic education subjects to incorporate Career Education as an activity. Education and Career Education are synonymous terms.

GOALS OF CAREER EDUCATION

LEARNING TO LIVE - means promoting the learners' awareness of their capabilities and developing their ability to deal with leisure time and society in general.

LEARNING TO LEARN - involves motivating the learners so that they want to learn the basic educational subjects. This can be done by making the subjects meaningful and by relating them to the real world of work.

LEARN TO MAKE A LIVING - means preparing learners so that they have the capability to support themselves economically and to become productive members of the community.

SKILL SCHEMES

This instructional unit, which related to the Career Education outcomes, has been field tested in the State of Arizona. A report of the field test results is available on request.

This unit is a suggested procedure. Feel free to adapt it to meet the needs of your particular students and situation. The following are suggestions made by the field test teachers:

OVERVIEW:

1. There are several different ways this unit could be re-sequenced.
 - a. The unit would have better math sequence if the lessons were rearranged.
 1. Introductory Lessons 1, 2, 3, and 4.
 - b. Perimeter and measurement of one dimension - Lessons 6 and 10.
 - c. Area and surface area - Lessons 5, 9, and 7.
 - d. Volume - Lesson 8.
 - e. Credit buying - Lesson 11.

If the sequence is changed, then the Instructional Procedures parts on Introduction and Summary will need to be changed.

2. The unit could also be divided into:
 - a. "Buying" - Lessons 1, 4, and 11.
 - b. "Home Improvement" - Lessons 5 - 10.

It was suggested that in Lessons 2 and 3 more use of student-oriented kinds of examples should be used, such as bikes, clothing, etc.

3. In Lessons 5 - 10:
 - a. Increase the Career Awareness and interdependency concepts by discussing the various occupations which provide the goods and services being used in the lesson.
 - b. Use the skills of product comparison and analysis of advertising as studied in Lessons 2 and 3 when carpets, paint, wall panelling, and tile are being discussed.

SKILL SCHEMES

Page Two

- c. Compare the cost of other advantages of self-improvement versus hiring a specialist to do the job.
- d. Give a pretest of math concepts -- perimeter, area, volume, etc. -- to determine what groups or supplementary instruction is needed.
- e. Vary the activities to avoid monotony of dittoed pages and problem solving. Use field trips, guest speakers, dramatic activities, etc.
- f. Use a variety of folders and brochures in addition to catalogues; e.g. bicycles or motor bikes, carpet, paint and tile samples for color, etc.
- g. Use many optional activities for individual differences, for example:
 1. Tiles needed in 9" x 9" squares rather than 12" x 12" described in Lesson 5, pages 69-70.
 2. Fence needed to protect bicycle racks or baseball field. Lesson 6, page 84.
 3. Carpet needed for an irregularly shaped room with several rectangles. Lesson 7, pages 107-108.
 4. Amount of material needed and waste which occurs because of means of purchase: rolls of carpet, square feet of paint coverage, cubic yards of concrete, etc.
 5. Concrete needed for new sidewalk or playground court at school. Lesson 8, pages 130-131.
 6. Paint needed for shelving in the classroom or, for playground equipment or furniture (picnic benches). Lesson 9, page 149.
- h. Have each student design and solve an assessment item for each lesson in order to show his/her understanding of the lesson and add to the reservoir of assessment items.

SPECIFICS:

Lesson 1:

- a. Possibly work in pairs on mobiles to reduce the amount of supplies needed. (pages 20-21).

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Lesson 2:

- a. Have some students compose and act out a thirty-second TV commercial. Have audience critique it. (page 29)
- b. A supplementary activity would be to include the student analysis of fair, effective advertising.
- c. Use examples of misleading advertising that are more in line with interests of young people.

Lesson 3:

- a. Use newspaper ads and brochures and folders from appliance, automobile, bicycle stores, in addition to the catalogue. (page 41)
- b. You may want to have each student complete a product assessment form similar to the one on page 45.

Lesson 4:

- a. Also use discount store catalogues which show "regular" price and "discount" price. (pages 54-55)
- b. As in Lesson 3, you may want the students to complete the product assessment form.

Lesson 7:

- a. Have some supplementary problems on carpet purchase which come out with fractions of a square yard such as 30 square feet -- need $3 \frac{1}{3}$ square yards. (page 108)

Lesson 8:

- a. You might want to split this lesson and do the activities the second session.

Lesson 9:

- a. For the tasks described on page 149 do more discussing and eliminate most of the teacher-directed lecture.

Lesson 10:

- a. If your students do not know fractions or decimals, you may want to make this lesson optional.

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Page Four

- b. This would be a good lesson to briefly discuss the interior decorator as a career.

Lesson 11:

- a. On page 180, give some students the amount of a monthly payment and the number of payments and have them compute the charge for credit and possibly the interest rate.

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UNIT DESIGN

OVERALL PURPOSE

This instructional unit will become an integral part of a total K-12 career education curriculum. This unit has been developed to afford the instructor maximum flexibility in its utilization. When planning for the use of this unit, it will be helpful for the instructor to give attention to the following characteristics.

GOALS

The unit goals of this career education unit are stated expectations toward which the instruction/learning effort is directed. It is intended that these unit goals be implicit in the total curriculum and also consistent with the accepted maturation patterns of learners.

PERFORMANCE OBJECTIVES

The performance objectives are derived from the unit goals and are intended to specify the expected behavior of the learners.

LESSONS

The lessons will help the instructor meet the performance objectives and are designed to assist learners in understanding how present experiences relate to past and future ones. The lessons are broken down into several parts. Before the main body of the lessons are described,

key items are presented: the concepts, the estimated time for delivering the lessons, the vocabulary introduced, the resources required, and the instructor preparation tasks.

The instructor procedures are presented in three sections:

INTRODUCTION. This section provides continuity within the unit and makes the learners aware of what they are to accomplish, how they will accomplish it, and why they are studying the particular concepts of the lesson.

TASKS. This section provides a detailed description of the content and activities used to deliver the specified outcomes. An attempt has been made to ensure that the activities are learner-oriented, free from irrelevancies, interesting, presented in small, sequential steps, and complete. Each lesson includes tasks which allow the learners to practice the desired outcome. Sample questions and responses are provided along with suggestions to the instructor for accomplishing the task.

SUMMARY. This section provides closure on the lesson and, if possible, a culminating activity for the learners. It also provides transition from one lesson to another.

RESOURCES

Instructional resources (materials, equipment, and/or persons) are suggested in the lesson. These resources have been designed and developed so that an instructor may deliver the lessons with minimal preparation time. Worksheets are prepared so that an instructor need only take the page in the unit and use it with an opaque projector or prepare a transparency or ditto master. A *Unit Resource Profile* has been prepared and is provided in the early part of the unit. Materials used in a lesson are located at the end of that lesson.

ASSESSMENT PROCEDURES

The purpose of the assessment procedures is to determine the learners' level of achievement of the performance objectives. The descriptions, directions, and keys to all items are presented along with the lesson description. Assessment items are placed directly after the lessons, but before any worksheets. This will allow the instructor to administer the assessment item(s) after each lesson.

Most of the items may be used to preassess learners before they begin the unit if the instructor desires.

UNIT OVERVIEW

PURPOSE OF THIS UNIT

The primary purpose of this unit is to develop learner skills in the areas of buying products and home improvement and maintenance. The first part of the unit provides experiences for the learners to identify aspects to consider when buying products. Another section of the unit provides experiences in identifying misleading advertisements and mail order catalog buying. Finally lessons are presented related to home improvement and maintenance. Hopefully the unit will provide experiences which may be useful for learners in their everyday lives.

INTENDED USE OF THIS UNIT

This unit was developed by experienced classroom instructors and reviewed by curriculum personnel not associated with its development. It represents only an early developmental effort. It is anticipated that the unit will be extensively revised based on data collected through classroom utilization. In order for useful revision data to be collected, it is essential that the unit be taught in a manner consistent with the developer's intent.

GRADE PLACEMENT

Sixth grade

SUBJECT AREA

Math, art, language arts

DURATION

Ten hours

GROUPING

Large and small

PREPARING TO TEACH THIS UNIT

Two *Unit Profiles* which follow this section have been prepared to give you an overview of the time, content, instructional strategies, and resources required for delivery of each lesson in this unit. These profiles provide a synopsis which will assist you in gaining a general understanding of the entire unit.

SPECIAL CONSIDERATIONS

Read the total unit and obtain resource materials before beginning.

If a transparency is suggested as a resource material, an opaque projector could be used or a copy reproduced for each learner. A transparency is suggested in Lessons 2, 3, 4, and 11.

This set of lessons is primarily designed to be taught in the second semester of the sixth grade. However, depending upon the levels of the learners and instructor discretion, the lessons may be introduced earlier. The lessons do not have to be taught in any particular sequence, but may be integrated into the regular curriculum at most any time. Ideas for integrating each lesson are as follows:

Lessons that Integrate into Specific Curriculum Areas

Art	Lang. Arts	Soc. Stu.	Reading	Math
1	1			
2		2	2	
3	3		3	
			4	4-11

- Lesson 1 A suggested time to introduce the lesson might be before the Christmas vacation when many learners are thinking about buying gifts.
- Lesson 2 Suggested times to introduce the lesson might be when studying about forms of communication or newspapers.
- Lesson 3 Anytime
- Lesson 4 A suggested time for teaching the lesson would be immediately following Lesson 3.
- Lesson 5 A suggested time for this lesson to be taught would be after the concept of area has been introduced to the learners.
- Lesson 6 A suggested time for this lesson to be taught would be after the concept of perimeter has been introduced to the learners.
- Lesson 7 A suggested time for this lesson to be taught would be after the concepts of square feet and square yards have been introduced to the learners.
- Lesson 8 A suggested time for this lesson to be taught would be after the concepts of cubic feet and cubic yards have been introduced to the learners.
- Lesson 9 A suggested time for this lesson to be taught would be after the concepts of area and square feet have been introduced to the learners.

Lesson 10

A suggested time for this lesson to be taught would be after the concepts of area and square feet have been introduced to the learners.

Lesson 11

A suggested time for this lesson to be taught would be after mathematical concepts relating to money have been introduced to the learners.

UNIT CONTENT/STRATEGY PROFILE

Lesson Number	Time	Content	Instructional Strategies
1	60 min.	Considerations when buying products	Art project
2	60 min.	Identifying writings or advertisements that may be misleading	Art project Transparencies
3	50 min.	Comparison of two products on the basis of price and quality	Transparencies Information sheet
4	60 min.	Completing a mail order catalog form	Transparency Worksheet
5	45 min.	Finding area of a room and the cost of tiling	Worksheet
6	60 min.	Finding perimeter to determine cost of fencing yards	Worksheets
7	60 min.	Determining area, computing the cost of carpeting	Worksheets
8	60 min.	Computing the costs of patios and side-walks	Information Sheet Worksheet
9	50 min.	Determining area and cost of painting the inside of a house	Worksheet

UNIT CONTENT/STRATEGY PROFILE

Lesson Number	Time	Content	Instructional Strategies
10	40 min.	Determining the cost of paneling walls in a house	Worksheet
11	45 min.	Credit buying versus paying cash	Transparency Worksheets

UNIT RESOURCE PROFILE

Lesson Number	Within Unit	To Be Acquired By Instructor
1	Assessment item	Bicycle 3' x 9' butcher paper 3" x 5" index cards (eight per learner) Coat hangers (one per learner) Construction paper 9" x 12" (two per learner) Old mail order catalogs (any mail order catalogs) Felt pen String Sample of completed mobile Scissors Paste, glue, or staples Crayons Hole punch
2	Transparency masters: <i>Misleading Ads</i> No. 1 and No. 2 Assessment item	Old magazines Newspapers 12" x 18" colored construction paper (one per learner) Scissors Paste Felt pens Overhead projector
3	Transparency masters: <i>Comparison of Products</i> No. 1 and No. 2 Information sheet: <i>Sample Completed Assignment</i>	Butcher paper chart from Lesson 1 Mail order catalogs Writing paper Paste Scissors Overhead projector

UNIT RESOURCE PROFILE

Lesson Number	Within Unit	To Be Acquired By Instructor
3 (Cont'd)	Assessment item: Product Assessment Form	
4	Worksheet master: Sample Mail Order Form Transparency master: Sample Mail Order Form Assessment item: Product Assessment Form	Old mail order catalog (any mail order catalogs) Overhead projector Grease pencil
5	Worksheet master: Area Problems Assessment item	12" x 12" square of tagboard or asbestos floor tile
6	Worksheet masters: Common Fences Fencing Yards Assessment item	Yardstick
7	Worksheet masters: Squares for Area Determining the Cost of Carpeting Rooms Assessment item	
8	Information sheet master: Volume and a Cubic Yard Worksheet masters: Finding the Costs of Concrete for Sidewalks and Patios Assessment item	

UNIT RESOURCE PROFILE

Lesson Number	Within Unit	To Be Acquired By Instructor
9	Worksheet master: <i>Determining the Cost of Painting the Inside of a House</i>	Cardboard box with bottom cut out (approximately 15" x 15" x 15")
	Assessment item	
10	Worksheet master: <i>Paneling Walls</i>	
	Assessment item	
11	Transparency master: <i>Easy Money</i>	
	Worksheet master: <i>Credit or Cash</i>	
	Assessment item	

INSTRUCTIONAL SEQUENCE

CONSIDERATIONS WHEN BUYING

LESSON ONE

CONCEPT

Thing to think about when buying

PERFORMANCE OBJECTIVE

Given a product, the learner will identify at least one aspect to consider when purchasing this item.

LESSON TIME

60 minutes

NEW VOCABULARY

Consumer - one who buys products

Calculate - figure out

Consider - give careful thought

Checks - inspects for satisfactory condition

Concerns - important considerations

RESOURCES REQUIRED

FOUND WITHIN LESSON	ACQUIRED BY INSTRUCTOR
Assessment item	<p>Bicycle</p> <p>3' x 9' butcher paper</p> <p>3" x 5" index cards (four per learner)</p> <p>Coat hangers (one per learner)</p> <p>Construction paper 9" x 12" (two per learner)</p> <p>Old mail order catalogs (any mail order catalogs)</p> <p>Felt pen</p> <p>Thread, colored</p> <p>Scissors</p> <p>Paste, glue, or staples</p> <p>Crayons</p> <p>Hole punch</p>

INSTRUCTOR PREPARATION TASKS

Assemble materials listed in the resources for the mobile construction. See the example of the completed mobile in the lesson.

List the new vocabulary words and definitions in the center of a 3' x 9' piece of butcher paper as found in the lesson. Allow some space for learner responses.

Place a bicycle in view of the class:

Provide the learners with sections of old mail order catalogs.

Duplicate a copy of the assessment item for each learner.

INSTRUCTIONAL PROCEDURES

INTRODUCTION

Lessons 1 and 2 are designed to help the learners better understand various things to consider when buying products. Experiences will be provided for the learners to identify some types of misleading advertising and develop skills in mail order catalog buying.

Lessons 3 through 11 attempt to develop mathematical computational skills related to the purchase of home products and improvement.

The purpose of the first lesson is for the learners to develop an understanding of things to consider when purchasing various items. The learners will participate in a class discussion and construct coat hanger mobiles displaying consumer considerations when buying products.

Ask the learners what things they would consider or think about if they were going to buy some gum.

Possible responses:

1. Does it taste good?
2. What does it cost?
3. What color is it?
4. Can you blow bubbles with it?

Tell the learners that these things to think about (considerations) not only apply when buying gum, but also whenever a person is buying any product.

TASKS

List the following terms and definitions in the center of a 3' x 9' piece of butcher paper using a felt pen. Allow space on the perimeter of the paper for later learner responses.

Example:

		9'											
		\$ \$ \$ \ <u>WISE BUYING SAVES</u> \$ \$ \$											
3'		Consumer - one who buys products											
		Calculate - figure out											
		Consider - careful thought											
		Checks - to inspect for satisfactory condition											
		Concerns - important considerations											

Refer to the butcher paper chart and explain the terms and definitions. Provide examples to explain the vocabulary words.

Convey to the learners the following definitions:

1. They are all *consumers* since they buy products.
2. They *calculate* when they look at the price to see if they are getting a good deal.
3. They *consider* when careful thought is given as to whether the product is a good one, if they really needed it, or whether they can afford it, etc.
4. They *check* the product carefully to see if it is in good condition and is well made.
5. The *concerns* would include all the things to think about before buying the product.

Mention to the learners that a good consumer considers many things before buying a product.

Place a bicycle in full view of all the learners. Request the learners to think of all things they might consider if they were going to buy a bicycle or any other product. Write these considerations on the same piece of butcher paper chart wherever there is space.

Use a felt pen. (Save the chart for a later lesson.)
Add to the list any the learners do not mention from the list below.

Possible responses:

1. What is the brand name?
2. What is the quality of the product?
3. What does it cost?
4. What is the color?
5. What size is it?
6. What style is it?
7. Does the product go on sale?
8. Is it popular now?
9. Is service given by the seller?
10. Is there any type of product guarantee?
11. What special features does the product have?
12. Is the dealer reputable?
13. Is the product really necessary or practical?
14. Is the product safe?
15. Will the product be purchased at a large or small store?
16. If the product is on sale, is it last year's model?

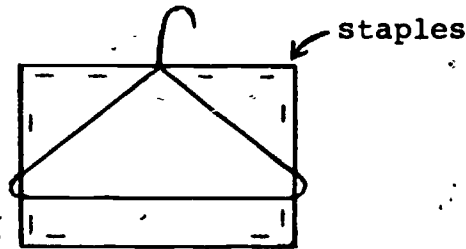
Tell the learners that they are going to make coat hanger mobiles showing things to consider when buying selected products. Provide the learners with the following materials:

1. One coat hanger for each learner
2. Paste or glue
3. Two sheets of 9" x 12" construction paper for each learner
4. 3" x 5" index cards (four per learner)
5. One yard of thread for each learner
6. Parts of old mail order catalogs
7. Scissors
8. Staples
9. Crayons
10. Hole punch

Instruct the learners to do the following:

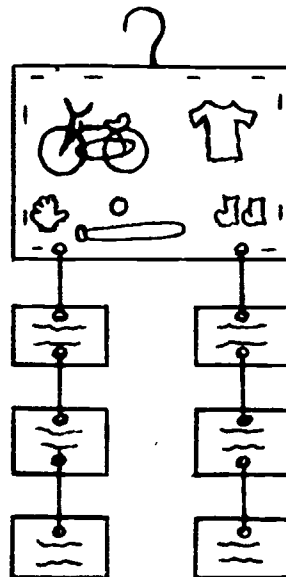
1. Select from the catalogs various products they would like to have (enough to fill two 9" x 12" pieces of construction paper).
2. Neatly cut these products out.

3. Paste these products on the two pieces of construction paper.
4. Place the coat hanger between the two pieces of construction paper with the products visible from both sides.
5. Staple the two pieces of construction paper together so they fit securely on the hanger.



6. Refer to the butcher paper chart and have the learners write on both sides of the 3" x 5" cards any aspects to consider when buying a product.
7. Punch holes in 3" x 5" cards and with string tie the cards together and attach them to the construction paper on hangers. The mobiles may be decorated and colored.

Sample completed mobile:



Display the mobiles in the room. Hang them from the ceiling if possible.

After the mobiles have been completed, request the learners to select the most important consideration for each product they have shown on their mobile. Have the learners orally share with the rest of the class the reasons why these considerations are the most important.

SUMMARY

Display to the class a wrist watch. Using the consideration listed on their mobiles, ask the learners what things they would consider if they were going to buy a watch.

Possible responses:

1. *Color*
2. *Type of band*
3. *Type of clock face*
4. *Type of numerals on clock face*
5. *Brand*
6. *Cost*

Inform the learners that a skillful buyer may save himself many dollars by careful buying.

In the next lesson opportunities will be presented to identify writings or advertisements that may be misleading.

ASSESSMENT PROCEDURES

DESCRIPTION

A multiple-choice question is used to achieve the assessment of the objective.

DIRECTIONS

The learners will read the item and record their responses. Assistance with vocabulary may be given by the instructor.

KEY

b

Name _____

Date _____

Lesson 1

ASSESSMENT ITEM

All of the following are important to consider when purchasing a recording tape for a recorder, except

- _____ a. cost.
- _____ b. color.
- _____ c. brand.
- _____ d. quality.

MISLEADING WRITINGS AND ADVERTISING

LESSON TWO

CONCEPT

Interpreting writings and advertisements that may be misleading

PERFORMANCE OBJECTIVE

Given a set of phrases, the learner will identify writings or advertisements that may be misleading.

LESSON TIME

60 minutes

NEW VOCABULARY

Advertise - to tell about products to encourage people to buy them

RESOURCES REQUIRED

FOUND WITHIN LESSON	ACQUIRED BY INSTRUCTOR
Transparency Masters: <i>Misleading Ads</i> No. 1 and No. 2	Old magazines
Assessment item	Newspapers
	12" x 18" colored construction paper (one per learner)
	Scissors
	Paste
	Felt pens
	Overhead projector

INSTRUCTOR PREPARATION TASKS

Duplicate a copy of the assessment item for each learner.

Assemble poster making materials listed in the resources section and lesson.

Prepare the transparencies *Misleading Ads No. 1* and *No. 2*.

INSTRUCTIONAL PROCEDURES

INTRODUCTION

In the previous lesson the learners identified various aspects to consider when buying products.

The purpose of this lesson is for the learners to apply critical thinking to writing and advertising techniques. Using newspapers and magazines, the learners will construct and design posters showing misleading writings, pictures, and advertisements.

Ask the learners what the word *advertise* means.

Desired response:

To tell about products to encourage people to buy them

If the learners do not come up with this response, explain the meaning of the word *advertise*.

Request that the learners think of products that are advertised in the newspaper or on radio and television.

Possible responses:

- | | |
|------------------|------------|
| 1. Hand lotion | 6. Foods |
| 2. Cars | 7. Toys |
| 3. Shaving cream | 8. Cameras |
| 4. Clothes | 9. Dishes |
| 5. Appliances | |

TASKS

Explain to the learners that many times newspapers, radio and television commercials, and magazine ads may present misleading information. This can be done in a number of ways.

Make sure the ideas in the following responses are conveyed.

Show the first transparency *Misleading Ads* to the learners (sofa and love seat - \$399.95). Ask the learners if this is really the "Best Value Ever."

Possible responses:

1. *No, you're paying for what you get.*
2. *No, there are probably many other better values some place else.*

Ask the learners if they are really getting two sofas for the price of one.

Possible response:

No, somehow you are really paying for both sofas.

Ask the learners if the word "just" is a reasonable term for \$399.95.

Possible responses:

1. *No.*
2. *I don't know.*
3. *I would need to compare to prices of other sofas.*

Ask the learners if you really get the love seat free.

Possible response:

No, you are probably paying in one way or another.

Show the second transparency on *Misleading Ads* to the learners. Ask the learners if only five milligrams tar could be a misleading statement considering the Surgeon General's statement.

Possible response:

Yes, since smoking is dangerous to one's health, any amount of tar could be dangerous to a person's health.

Inform the learners that the word only is sometimes used in advertising to mislead people. The word only shown on the transparency leads people to believe that 5 milligrams of tar isn't harmful to one's health. However, any tar is harmful to a person's body and over a period of years can cause serious problems.

Encourage the learners to think of any television commercials that may present misleading ideas. List these on the chalkboard.

Possible responses:

1. Soaps that claim to remove all spots
2. Soaps that claim to get clothes the whitest
3. Razor blades that claim to give the smoothest shaves
4. Toothpaste that makes teeth the whitest and prevents the most decay
5. Tires that claim to wear longer
6. Cigars that claim a smoother and more refreshing flavor
7. Hand lotions that claim to make hands younger
8. Shampoos that claim to make hair softer
9. Shaving creams that claim to give closer and more comfortable shaves
10. Products that imply an enhancement toward members of the opposite sex

Inform the learners that although these statements may not be false, they could be misleading and are not always totally true.

Distribute the following poster making materials:

1. Newspapers
2. Construction paper, 12" x 18" (one piece per learner)
3. Old magazines
4. Scissors
5. Paste
6. Felt pens

Instruct the learners that they are to make posters depicting misleading writing and advertising techniques. They may cut out newspaper, magazine articles, and advertisements which may be misleading.

These cut outs should be pasted on the construction paper and labeled, captioned or underlined to emphasize the misleading ideas.

Display these completed posters.

SUMMARY

Review with the learners that there are many ways in which misleading ideas are presented to the public. Explain that as intelligent citizens, we should try to recognize misleading ideas which are presented to us. Ask the learners to select the misleading advertisement or writing which interested them the most, and orally share with the rest of the class why these concepts were misleading.

In the next lesson, a comparison of two products on the basis of price, quality, color, brand, features, etc., will be presented.

ASSESSMENT PROCEDURES

DESCRIPTION

A multiple-choice question is used to achieve the assessment of the objective.

DIRECTIONS

Check the statement which indicates the advertisement that may be misleading.

KEY

a

Name _____

Date _____

Lesson 2

ASSESSMENT ITEM

Check the statement that indicates the advertisement that may be misleading.

- ☐ a. "Best value ever"
- ☐ b. "See our new 1973 cars"
- ☐ c. "January clearance sale"
- ☐ d. "20 percent off on merchandise"

FANTASTIC VALUE!!!

2 for the price of 1

BUY 1 PAIR OF OUR FANTASTIC
SLACKS... WE'LL GIVE YOU
THE SECOND PAIR...

FREE!!!



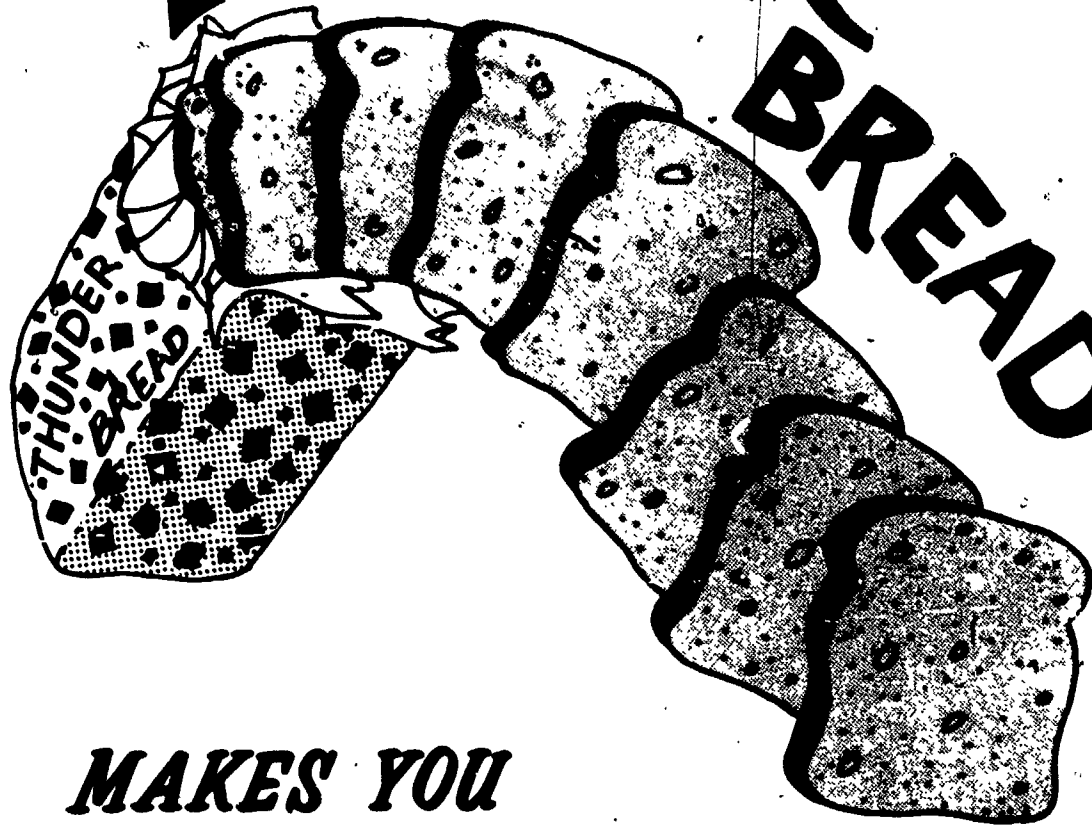
2 for \$15



MISLEADING ADS No. 1

MISLEADING ADS No. 2

NEW IMPROVED THUNDER BREAD



***MAKES YOU
STRONGER & HEALTHIER!***

"The bread your friends eat!"

COMPARING PRODUCTS

LESSON THREE

CONCEPT

Comparison of two products on the basis of price and quality

PERFORMANCE OBJECTIVE

Given a mail order catalog, the learner will compare two products of the same type on the basis of price and quality.

LESSON TIME

50 minutes

NEW VOCABULARY

Quality - how good or well made a product is

Features - special things added to the product

RESOURCES REQUIRED

FOUND WITHIN LESSON	ACQUIRED BY INSTRUCTOR
Transparency masters: <i>Comparison of Products No. 1 and No. 2</i>	Butcher paper chart from Lesson 1
Information sheet: <i>Sample Completed Assignment</i>	Mail order catalogs
Assessment item: <i>Product Assessment Form</i>	Writing paper
	Paste
	Scissors
	Overhead projector

INSTRUCTOR PREPARATION TASKS

Display the butcher paper chart from Lesson 1.

Acquire mail order catalogs and divide them into sections for each learner.

Prepare the transparencies *Comparison of Products No. 1 and No. 2*.

List on the chalkboard the (*Sample Completed Assignment*) found in the lesson.

Duplicate one copy of the *Product Assessment Form* for instructor use.

INSTRUCTIONAL PROCEDURES

INTRODUCTION

In the previous lesson, the learners identified misleading writings and advertisements. The purpose of this lesson is for the learners to compare products of the same type on the basis of price and quality. A mail order catalog will be used as a resource for this comparison. This lesson should provide learners with the opportunity to take a better look at products they buy.

Ask the learners if all new bicycles cost the same price.

Desired response: No

Ask the learners why all new bicycles are not the same price.

Possible responses:

1. *Ten speeds cost more than five speeds.*
2. *Certain makes or brands cost more.*
3. *Certain styles cost more.*

TASKS

Refer to the butcher paper chart from Lesson 1 with a listing of things to consider when buying products. Review these considerations with the learners.

Instruct the learners that this activity will provide them with an opportunity to compare two products of the same type on the basis of price, features, and quality. Explain to the learners the meaning of the following terms: *quality* - how well made a product is; *features* - special things added to the product. Show the first transparency *Comparison of Products* to the learners. Explain to the learners that the same type of product sometimes comes in different prices with different features and qualities. For example, on the transparency it shows two vacuum cleaners; one priced at \$39 and the other \$200. Ask the learners if they can think of reasons why these vacuum cleaners are priced differently.

Possible responses:

1. *More powerful motor*
2. *More features*
3. *Longer lasting*

Show the second transparency *Comparison of Products* and point out that there are two lawn mowers one priced \$25 and the other \$185. Ask the learners to think of reasons why these lawn mowers are priced differently.

Possible responses:

1. *Different powered motors*
2. *Different wheel adjustments*
3. *Wider cuts*
4. *Different features*

Distribute writing paper to the learners. Explain to the learners that they are to find products of the same type with different prices in the catalogs and compare the differences by reading the descriptions. The butcher paper chart from Lesson 1 may be used as a reference. Tell the learners they may cut out the pictures and descriptions of the products and paste them to their papers, then list the differences. Ask the learners to use their best judgment and rate the two products as to quality after they have listed the differences using the ratings poor, good, and excellent. The learners may use the sample listed on the chalkboard as a guide. (Sample Completed Assignment found in lesson)

Collect the assignments and display them on the bulletin board.

SUMMARY

Review with the learners some of the differences in products of the same type with varying prices. Remind the learners that many times the price of the product they buy depends on their particular need and their personal finances. Request the learners to orally share their projects with the rest of the class.

In the next lesson, the learners will have an experience in ordering items from a mail order catalog.

ASSESSMENT PROCEDURES

DESCRIPTION

The assignments used during the lesson will be used to assess achievement of the objective.

DIRECTIONS

Given two items of the same type, but with different features and different cost, the learner will be able to list at least five differences and will state a judgment of overall quality and also quality in terms of price.

The instructor will use the following criteria to assess the assignments completed by the learner.

1. Name of products compared
2. Price

3. Identified features
4. Identified quality
5. Completed assignment

A *Product Assessment Form* is provided for the instructor's use.

KEY

Instructor satisfaction

Date _____

Lesson 3

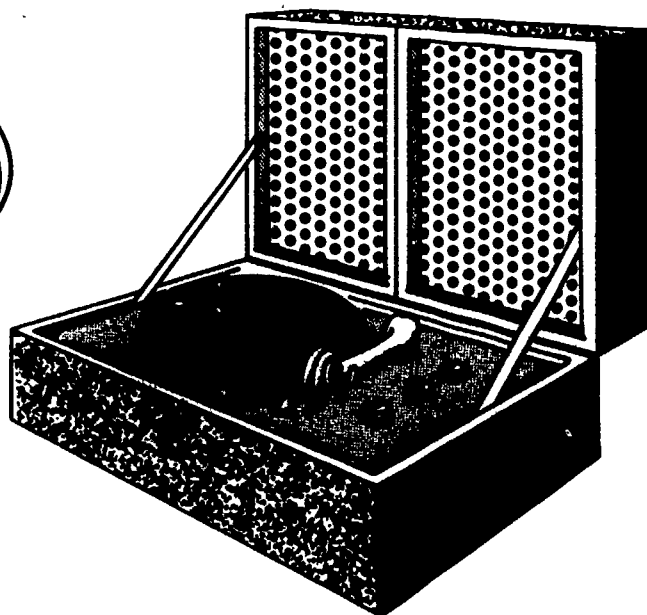
PRODUCT ASSESSMENT FORM

Learner's Name	Name of Products Compared	Price	Identified Features	Identified Quality	Completed Assignment
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		
	A. B.	A. B.	A. B.		

COMPARISON OF PRODUCTS No. 1

ONLY
\$39⁰⁰


why pay
more?



STEREO

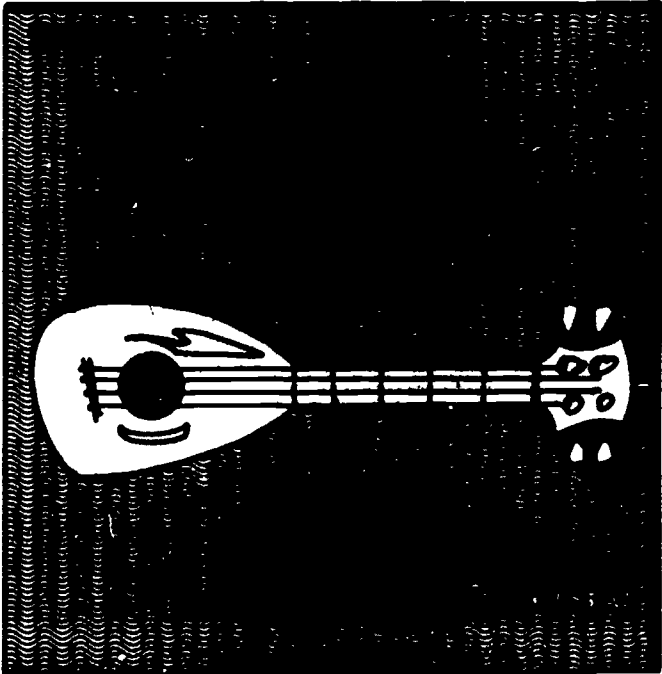
\$450

COMPARISON OF PRODUCTS No. 2



ONLY
\$3⁹⁹

\$7⁰⁰



ORDERING FROM A CATALOG

LESSON FOUR

CONCEPT

Completing a mail order catalog form

PERFORMANCE OBJECTIVE

Given a mail order catalog, the learner will complete a mail order form and compute the total price of an order.

LESSON TIME

50 minutes

RESOURCES REQUIRED

<u>FOUND WITHIN LESSON</u>	<u>ACQUIRED BY INSTRUCTOR</u>
Worksheet master: <i>Sample Mail Order Form</i>	Old mail order catalog (any mail order catalogs)
Transparency master: <i>Sample Mail Order Form</i>	Overhead projector
Assessment item: <i>Product Assessment Form</i>	Grease pencil

INSTRUCTOR PREPARATION TASKS

Duplicate *Sample Mail Order Form* for each learner.

Make the transparency *Sample Mail Order Form*.

Acquire catalogs for learner use.

List the advantages and disadvantages of mail order catalog buying on the chalkboard. These are found in the lesson.

Acquire an overhead projector.

Duplicate one copy of the *Product Assessment Form* for instructor use.

INSTRUCTIONAL PROCEDURES

INTRODUCTION

In the previous lesson the learners compared two products of the same type on the basis of price and quality. The purpose of this lesson is for the learners to complete a mail order form after selecting products they would like to buy from a mail order catalog. Advantages and disadvantages of mail order catalog buying will also be brought out in the lesson.

Ask the learners if anyone has ordered items or products through the mail.

Desired response: Yes

Ask the learners to describe the product that they ordered through the mail. (Answers will vary.) Tell the learners that buying products through the mail is a form of mail order buying.

TASKS

Inform the learners that many people buy items from mail order catalogs. Refer to the chalkboard and mention to

the learners some of the advantages and disadvantages listed below:

1. Advantage - Products may be delivered to your door or picked up at a nearby mail order house.
2. Advantage - Catalogs usually have a greater selection of merchandise than a regular retail store.
3. Advantage - Prices in catalogs are usually a little less than in retail stores.
4. Disadvantage - There is usually a few days delay in receiving the product after it has been ordered.
5. Disadvantage - You don't get to see the real product or try it for size when ordering from a catalog.
6. Disadvantage - If a person desires to return a product, it must be re-wrapped and additional postage may be required.

Distribute sections of the mail order catalogs to the learners. (You may wish the learners to work in pairs or groups if your catalog supply is limited.)

Ask the learners to look through the catalogs and select products they might like to buy. (Allow about ten minutes for this part of the lesson.) Distribute the worksheet *Sample Mail Order Forms* to the learners.

Show the transparency *Sample Mail Order Form* to the learners and explain how to complete the form by doing the following:

1. Fill in the date at the top of the form.
2. Fill in your name, address, city, and state in the space provided in the lower left hand part of the form.
3. Select three items from the mail order catalogs that you would like to buy.
4. From the descriptions of the products selected in the catalog, complete the following on the *Sample Mail Order Form* for each item.

- a. Name of product or item you wish to order
- b. How many (write one for all items ordered)
- c. Catalog number
- d. Weight in pounds and ounces
- e. Size
- f. Color
- g. Total cost per item

If the learners have questions or need an explanation, fill in the *Sample Mail Order Form* transparency with a grease pencil. Total the cost and weight for all items ordered and write in these amounts in the space provided on the order form (change the total ounces over sixteen to pounds if necessary).

Allow time for the learners to complete their worksheets *Sample Mail Order Forms*.

Explain to the learners that tax and postage are usually added to the total cost of an order. The amount of the tax varies from state to state, and the amount of postage depends on the total weight of your order and how far away you live from the shipping warehouse.

Emphasize to the learners that money in the form of bills or coins should never be sent through the mail. It is advisable to send either a check or a money order.

SUMMARY

Ask the learners to orally share the names of the products they decided to buy, the reasons why they selected the products, and the total costs of their orders.

Explain to the learners that this set of lessons has provided experiences that may help them in the buying of various products. The next set of lessons will help the learners to develop skills which may assist them in buying products for home improvement and maintenance.

ASSESSMENT PROCEDURES

DESCRIPTION

The worksheets used during the lesson will be used to assess achievement of the objective.

DIRECTIONS

Given a series of five items the learner will fill out an order blank for the items, compute unit prices and the total cost.

The instructor will use the following criteria to assess the worksheet completed by the learner.

1. Ordered products
2. Identified product descriptions
3. Computed total costs
4. Completed assignment

A *Product Assessment Form* is provided for the instructor's use.

KEY

Instructor satisfaction

DATE _____ 19 ____ SAMPLE MAIL ORDER FORM

Name of Product	Quantity	Cat. No.	Weight		Size	Color	Unit Cost	Total Cost
			LBS	OZ				
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								

Total Weight

Lbs. | Ozs.

TOTAL COST FOR
ALL PRODUCTS \$ _____

Total Weight

Lbs.

ORDERED
SALES TAX

TOTAL

MAIL ORDER TO: (Buyer's Name and Address)

Name _____

Address _____

City _____

State _____

Zip _____

WORKSHEET

Name _____

Date _____

Lesson 4

SAMPLE MAIL ORDER FORM

Date _____ 19__								
Name of Product	How Many	Catalog Number	Weight Lbs. Oz.		Size	Color	Cost per Item	Total Cost
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
Total weight			Lbs.	Oz.	Total cost for all products ordered			\$
Total weight			Lbs.					

Mail Order to: (Buyer's name and address)

Name _____

Address _____

City _____ State _____ Zip _____

WORKSHEET KEY

Name _____

Date _____

Lesson 4

SAMPLE MAIL ORDER FORM
INSTRUCTOR'S SAMPLE COMPLETED

Date Feb. 8, 1973

Name of Product	How Many	Catalog Number	Weight		Size	Color	Cost per Item	Total Cost
1. Racing Bike	1	7V47632R	42	—	27in.	Red	\$ 84.95	\$84.95
2. Bike lock	1	8R63479L	1	—	30in.	Silver	2.99	2.99
3. Bike radio	1	9V42356M	1	8	4" x 6" x 2"	Green	15.99	15.99
4. American Flag	1	5R32123M	2	12	3' x 5'	Red, white, blue	5.99	5.99
5. Mickey Mouse Watch	1	8562634D	—	8			11.95	11.95
6.								
7.								
8.								
9.								
10.								
Total weight			Lbs. 46	Oz. 28	Total cost for all products ordered			\$ 121.87
Total weight			Lbs. 47	Oz. 12				

Mail Order to: (Buyer's name and address)

Name James Brown

Address 4 East Second Ave.

City Mesa state Arizona zip 85203

TILING A FLOOR

LESSON FIVE

CONCEPT

Finding the area of a room and cost for tiling

PERFORMANCE OBJECTIVE

Given a home improvement project, the learner will determine the cost of materials for tiling a floor with asbestos floor tile.

LESSON TIME

45 minutes

NEW VOCABULARY

Area - the number of surface squares included within a set of lines

PREREQUISITE KNOWLEDGE

Understanding foot as a unit measurement

Understanding the multiplication of whole numbers, decimals to thousandths, and fractions

Understanding of area

RESOURCES REQUIRED

<u>FOUND WITHIN LESSON</u>	<u>ACQUIRED BY INSTRUCTOR</u>
Worksheet master: <i>Area Problems</i>	12" x 12" square of tagboard or asbestos floor tile
Assessment item	

INSTRUCTOR PREPARATION TASKS

Duplicate the following items for each learner:

1. *Area Problems*
2. Assessment item

Cut out a 12" x 12" tagboard square or acquire a 12" x 12" asbestos floor tile.

List definition of area and formula, $A = l \times w$ (found in lesson) on the chalkboard.

INSTRUCTIONAL PROCEDURES

INTRODUCTION

In the previous lessons the learners had experiences related to developing skills when buying all types of products. This section of the unit deals with developing skills which will be helpful to the learner when buying products for home improvements and maintenance.

The purpose of this lesson is for the learners to figure the areas of rooms in square feet and to determine the costs of tiling these rooms.

Ask the learners if they have ever seen or helped their parents with a home improvement project.

Desired response: Yes

Request that the learners explain their experiences and estimate how much the materials for the project cost.

Possible response:

*We painted our house, and the paint, roller,
and brush cost around sixty dollars.*

TASKS

Explain to the learners that there are many things that a person must do to keep his home looking nice. Many times the home owner can do these projects himself. Other times the home owner will hire other workers to do these projects. The owner of a home usually saves money if he can do a project himself.

Ask the learners to think of things that many people do to improve their homes and make them nicer.

Possible responses:

1. *Paint the inside and the outside.*
2. *Cut the grass.*
3. *Clean the inside and the outside.*
4. *Replace the carpet or tile.*
5. *Add on to their home to make it larger.*

Tell the learners that in this lesson and in the upcoming lessons they are going to have some experiences that might help them if they were to undertake home improvement projects. Explain to the learners that for these lessons they are to pretend that they have just bought a house that needs some repairs. They bought the house at a reasonable price so they still have money left for the needed repairs. The first thing to be done is to replace the kitchen floor.

Show the 12" x 12" square of tagboard or a 1 foot square of asbestos tile to the learners. Tell the learners that 12" x 12" squares of tile will be used to replace the old floor. Each tile is one square foot. In other words, it is a square that measures 1 foot or 12 inches on each side. These tiles cost 20 cents each. The price of tiles may change as other prices do. However, for this lesson we will use the 20 cents per tile figure. This price also includes any other materials you may need to complete the task. Explain to the learners that they are to pretend they have the skills to lay the tiles and do whatever else is required to complete the projects.

Explain that their first task is to find out how many of these tiles will be needed for the kitchen floor. Refer to the definition of area and the formula $A = l \times w$ on the chalkboard.

The area is the number of surface squares included within a set of lines. ($A = l \times w$ or Area = length times width)

Inform the learners that the area of the kitchen would be the surface area or space that has to be covered with tiles. The formula $A = l \times w$ will provide them the number of square feet that is to be covered.

For example, if the kitchen is 12' long and 10' wide, use the formula $A = l \times w$ to find the area. Substitute the numbers as follows, $A = 12' \times 10'$, $A = 120$ square feet. Remind the learners that the answer to area problems is always in square measure. Review with the learners the process for finding the area of a room as follows:

1. Measure the length of the room.
2. Measure the width of the room.
3. Use the formula $A = \text{length times width}$.
4. Multiply the length times the width.

Distribute the worksheets *Area Problems* to the learners. Tell the learners they are to find the area for each room and multiply their answer by 20 cents since this is the cost of each tile. Do the example on the worksheet with the entire class.

Circulate among the learners and provide assistance when needed.

When the learners have completed their worksheets, give the correct answers to them from the *Area Problems Instructor's Answer Key*.

Next, ask the learners to turn their completed worksheets over and determine the area of the 12' x 15' kitchen in the house they just bought.

$$\begin{aligned} A &= l \times w \\ A &= 12' \times 15' \\ A &= 180 \text{ square feet} \end{aligned}$$

The tiles cost 20 cents each. Ask the learners to total the cost for tiles.

Desired response:

$$\begin{array}{r} \text{Tile} \quad 180 \\ \times .20 \\ \hline \$36.00 \end{array}$$

Circulate and check to see if the learners did the problem correctly.

SUMMARY

Ask the learners if they can think of other times when their ability to find area might be useful.

Possible responses:

1. Planting or fertilizing a lawn
2. Measuring land
3. Measuring for carpet
4. Determining an area to be painted
5. Doing concrete work
6. Determining the amount of wallpaper for a wall

Review with the learners that the purpose of this lesson was to help them learn how to determine area and compute the cost of tiling floors.

Tell the learners that in the next lesson an opportunity will be presented to determine the cost of fencing a yard. This will be another lesson in home improvement and maintenance.

ASSESSMENT PROCEDURES

DESCRIPTION

A multiple-choice item is used to assess achievement of the objective.

DIRECTIONS

The learners will read the item and record their responses. Assistance with vocabulary may be given by the instructor.

KEY

b

Name _____

Date _____

Lesson 5

ASSESSMENT ITEM

You are going to use one foot square tiles to cover a room 10' x 10'. The tiles cost 20 cents each. This tile price includes any tools and materials necessary to complete the task. What is the total price of tiling this room?

- _____ a. \$15
- _____ b. \$20
- _____ c. \$35
- _____ d. \$100

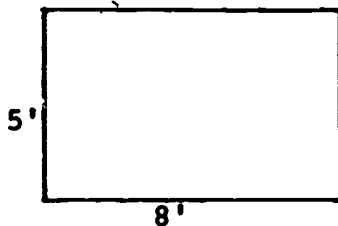
Name _____
Date _____

AREA PROBLEMS

Lesson 5

Directions: Find the area for each room by multiplying the length times the width. When you have found the area, multiply this number by 20 cents since this is the cost per tile. Problem 1 is done for you.

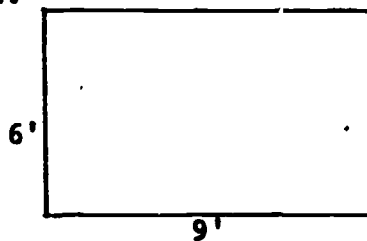
1.



$A = l \times w$
 $A = 8' \times 5'$
 $A = 40$ square feet

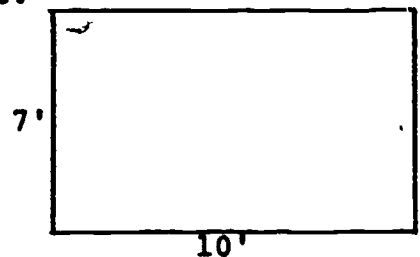
Cost of tiling:
 $40 \times \$.20 = \8

2.



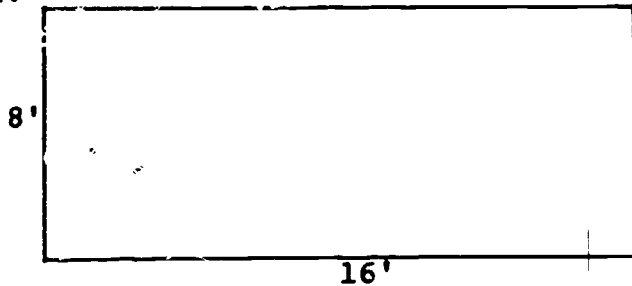
$A =$ _____
Cost of tiling _____

3.



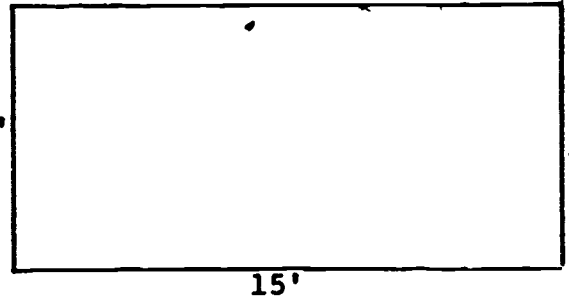
$A =$ _____
Cost of tiling _____

4.



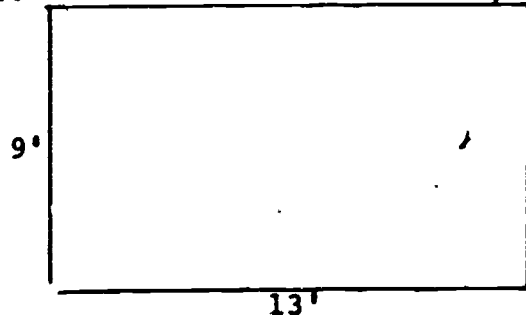
$A =$ _____
Cost of tiling _____

5.



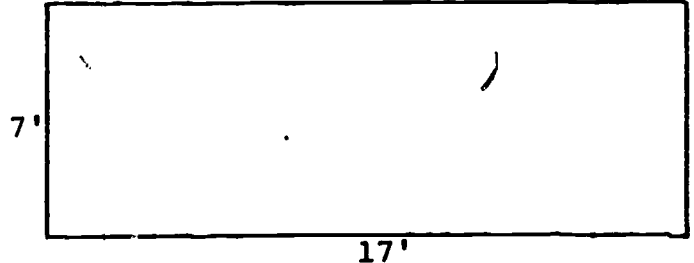
$A =$ _____
Cost of tiling _____

6.



$A =$ _____
Cost of tiling _____

7.



$A =$ _____
Cost of tiling _____

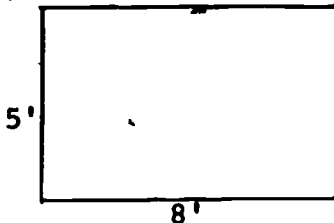
AREA PROBLEMS

INSTRUCTOR ANSWER KEY

Lesson 5

Directions: Find the area for each room by multiplying the length times the width. When you have found the area, multiply this number by 20 cents since this is the cost per tile. Problem 1 is done for you.

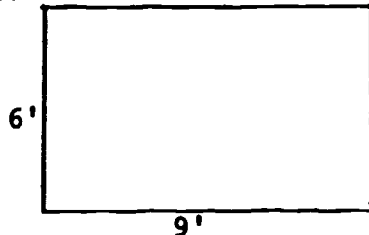
1.



$$\begin{aligned} A &= l \times w \\ A &= 8' \times 5' \\ A &= 40 \text{ square feet} \end{aligned}$$

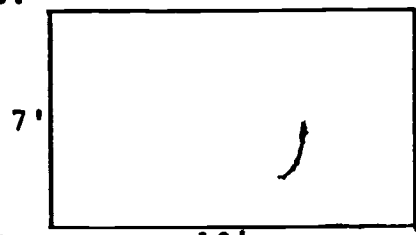
$$\begin{aligned} \text{Cost of tiling:} \\ 40 \times \$.20 &= \$8 \end{aligned}$$

2.



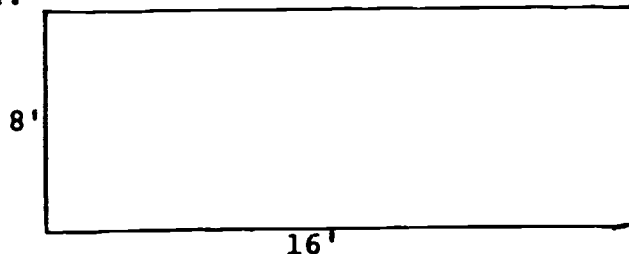
$$\begin{aligned} A &= 54 \text{ sq. ft.} \\ \text{Cost of tiling} &= \$10.80 \end{aligned}$$

3.



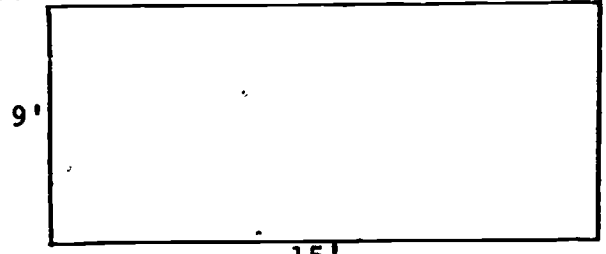
$$\begin{aligned} A &= 70 \text{ sq. ft.} \\ \text{Cost of tiling} &= \$14.00 \end{aligned}$$

4.



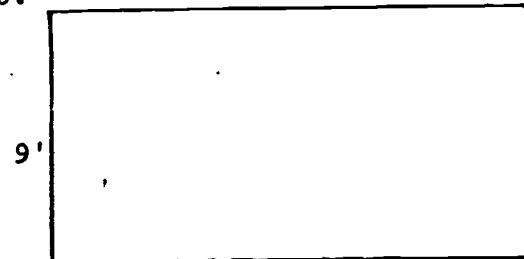
$$\begin{aligned} A &= 128 \text{ sq. ft.} \\ \text{Cost of tiling} &= \$25.60 \end{aligned}$$

5.



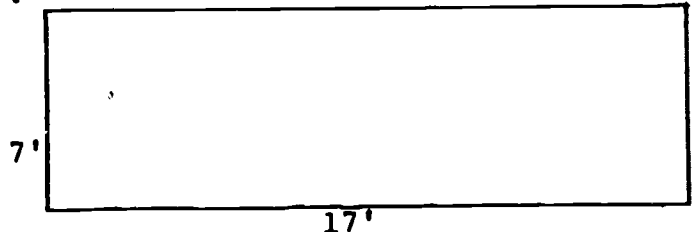
$$\begin{aligned} A &= 135 \text{ sq. ft.} \\ \text{Cost of tiling} &= \$27.00 \end{aligned}$$

6.



$$\begin{aligned} A &= 117 \text{ sq. ft.} \\ \text{Cost of tiling} &= \$23.40 \end{aligned}$$

7.



$$\begin{aligned} A &= 119 \text{ sq. ft.} \\ \text{Cost of tiling} &= \$23.80 \end{aligned}$$

FENCING A YARD

LESSON SIX

CONCEPT

Finding perimeter to determine cost of fencing a yard

PERFORMANCE OBJECTIVE

Given a home improvement project, the learner will determine the cost of materials for building a fence.

LESSON TIME

60 minutes

NEW VOCABULARY

Perimeter - a line or boundary surrounding an area

PREREQUISITE KNOWLEDGE

Understanding foot as a unit of measure

Understanding the addition and multiplication of whole numbers, fractions, and decimals (to thousandths)

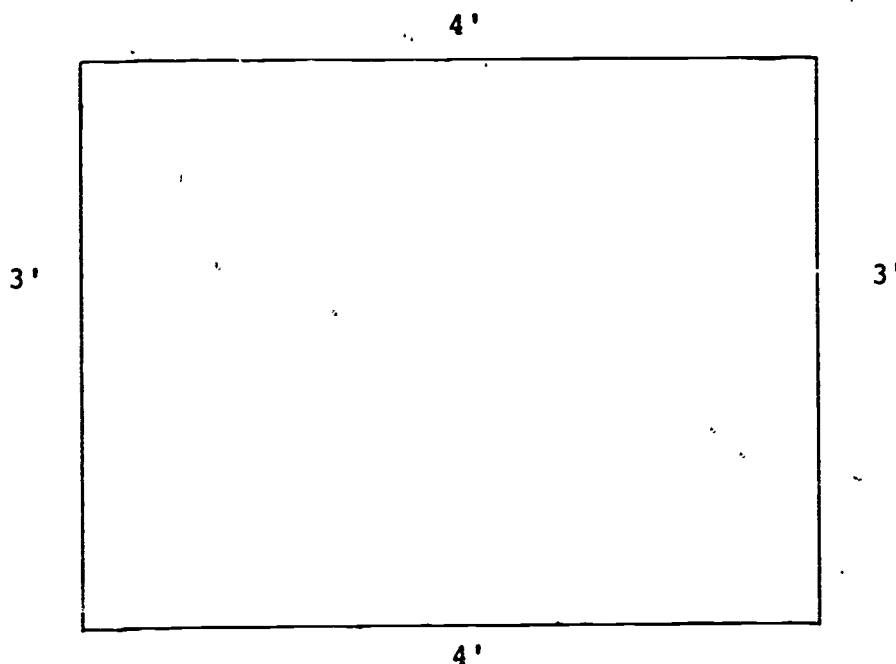
RESOURCES REQUIRED

FOUND WITHIN LESSON	ACQUIRED BY INSTRUCTOR
Worksheet masters: <i>Common Fences</i> <i>Fencing Yards</i>	Yardstick
Assessment item	

INSTRUCTOR PREPARATION TASKS

Write the definition of perimeter as found in the lesson on the chalkboard.

Use yardstick to draw a 3' x 4' rectangle on the chalkboard.



List the formula $P = S + S + S + S$ on the chalkboard.

Duplicate the following items for each learner:

1. *Common Fences*
2. *Fencing Yards*
3. Assessment item

INSTRUCTIONAL PROCEDURES

INTRODUCTION

In the previous lesson the learners had experiences in determining area and computing the cost of tiling floors.

The purpose of this lesson is for the learners to determine the perimeter and the cost of fencing a yard. The learners will also identify advantages and disadvantages of various types of fences.

Explain to the learners that they are going to continue the home improvement projects on the house they bought in the previous lesson. The project in this lesson is to fence the back yard.

Ask the learners to think of reasons why a person would want to fence a back yard.

Possible responses:

1. *So you can have privacy.*
2. *It ~~is~~ required if you have a swimming pool.*
3. *To keep small children and pets off the streets.*

TASKS

Distribute the worksheet *Common Fences* to the learners. Tell the learners that there are usually some advantages and disadvantages to most everything they buy. For example, an advantage of buying a wooden fence might be that it is cheaper than a block fence. On the other hand, a disadvantage of a wooden fence might be that the boards may rot out when they get old.

Ask the learners to list any advantages or disadvantages they can think of for each type of fence on the worksheet. Circulate among the learners and provide assistance when needed.

Have the learners orally share with the class their list of advantages and disadvantages for each type of fence listed on their worksheets.

Refer to the definition of perimeter listed on the chalkboard.

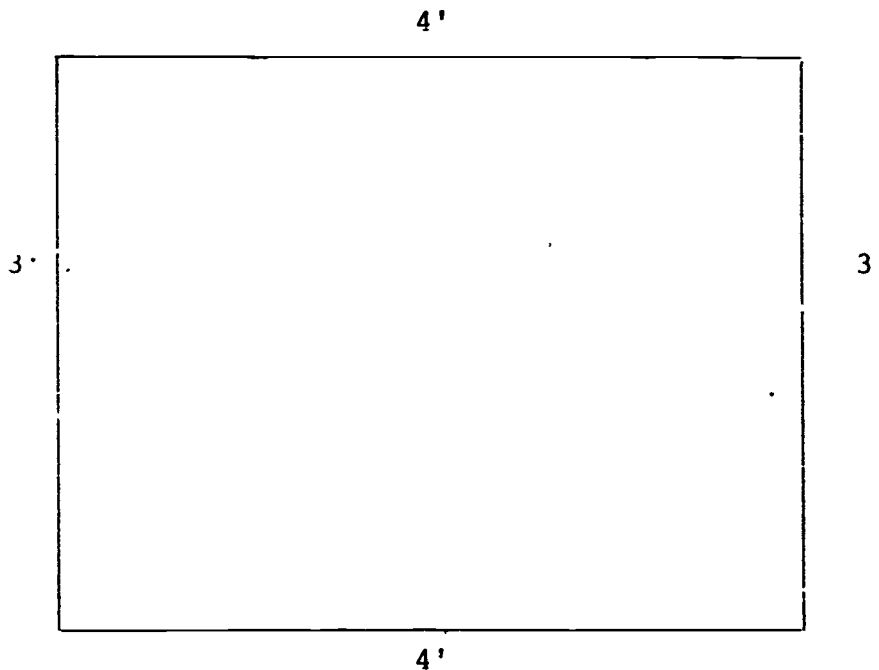
Perimeter - a line or boundary surrounding an area

Ask the learners if anyone could put the definition of perimeter listed on the chalkboard in their own words.

Possible response:

The distance around some ground or space.

Refer to the 3' x 4' rectangle and the formula $P = S + S + S + S$ on the chalkboard.



$$P = S + S + S + S$$

Inform the learners that if they were to find the perimeter or distance around the rectangle listed on the chalkboard, they could use the formula $P = S + S + S + S$. In this formula the "P" stands for perimeter, and the "S's"

stand for the sides. Therefore, to find the perimeter of the rectangle, substitute the length of the sides for the "S's" and add as follows:

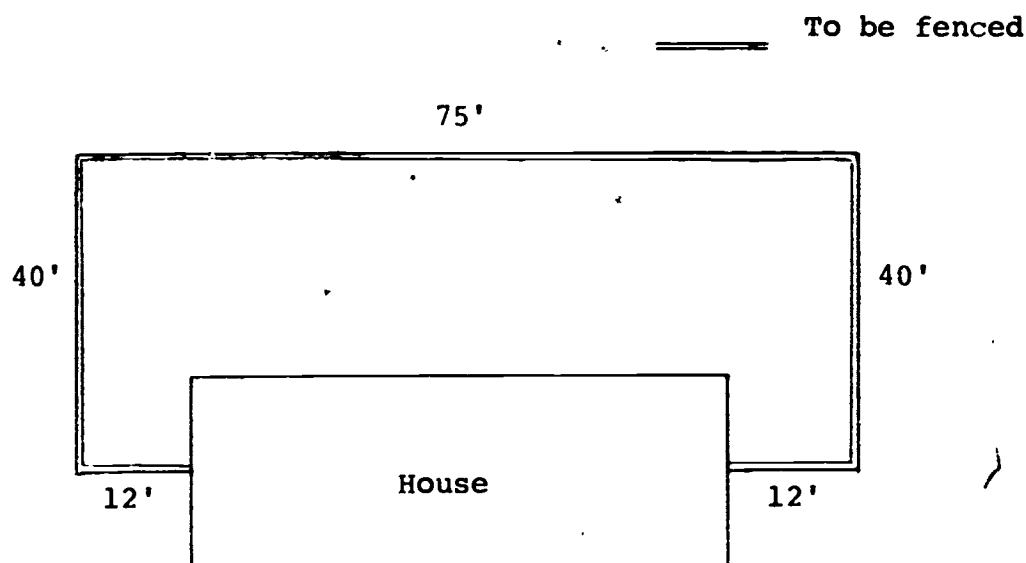
$$\begin{aligned}P &= X + S + S + S \\P &= 3' + 4' + 3' + 4' \\P &= 14'\end{aligned}$$

In other words, just add the sides of the rectangle or figure to get the perimeter.

Explain to the learners that this formula could be used to find the perimeter of figures with more or less than four sides. Finding the perimeter will be a necessary step when determining the cost of fencing a yard.

Explain to the learners that they will be given a worksheet with some sample back yards. They are to find the perimeter for each back yard and determine the cost of fencing with each type of material. This is done by multiplying the perimeter by the cost per foot of building material. The cost per foot is given on the worksheet. The double lines on the worksheet show the perimeter to be fenced. Tell the learners that the price of fencing materials given on the worksheets are only estimates and could change from time to time and place to place. However, these prices do include everything needed to complete the project.

Distribute the worksheet *Fencing Yards* to each learner and go over the first problem, which is completed as an example for them.



$$P = S + S + S + S$$

$$P = 75' + 40' + 40' + 12' + 12'$$

$$P = 179'$$

$$\text{Cost for a wooden fence } 179' \times \$2.50 = \$447.50$$

$$\text{Cost for a cement block fence } 179' \times \$4.00 = \$716.00$$

$$\text{Cost for a wire chain link fence } 179' \times \$2.00 = \$358.00$$

Circulate among the learners and provide assistance when necessary.

When the learners have completed their worksheets, collect, correct, and return them as soon as possible.

SUMMARY

Review with the learners that the purpose of this lesson was to determine the cost of fencing yards. In order to do this, they must first find the perimeter of the yard and multiply this figure by the cost per foot of the fencing material.

Have the learners work in groups to determine the perimeter of various areas of the school. Have the learners share their findings.

Suggested areas to determine the perimeter of:

1. Playground
2. Classroom
3. Tabletops
4. Desk tops
5. Gymnasium

In the next lesson experiences will be provided for the learners to determine the cost of carpeting rooms in a house.

ASSESSMENT PROCEDURES

DESCRIPTION

A multiple-choice item is used to assess achievement of the objective.

DIRECTIONS

The learners will read the item and record their responses. Assistance with vocabulary may be given by the instructor.

KEY

d

Name _____

Date _____

Lesson 6

ASSESSMENT ITEM

You are going to build a three sided, six-feet wooden fence around your property. The three sides measure 50' x 50' x 100'. The fence will cost \$2.50 per foot including posts, fence boards, runners, nails, and cement. What is the total cost of the fence?

✓

- _____ a. \$100
- _____ b. \$150
- _____ c. \$300
- _____ d. \$500

Name _____

Date _____

Lesson 6

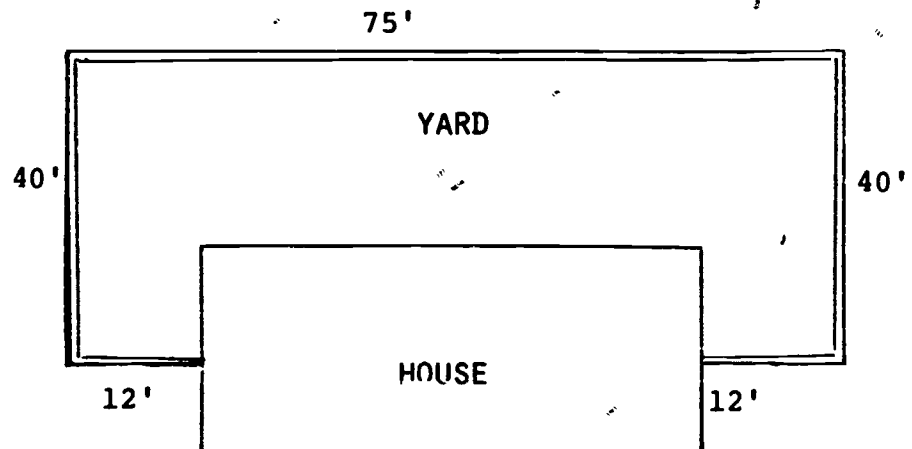
FENCING YARDS

Directions: Find the perimeters and the costs of fencing yards with the three different types of materials:

Wooden fence \$2.50 foot
Cement block fence \$4.00 foot
Wire chain link fence \$2.00 foot

The first problem is done for you as an example. Use scratch paper if necessary. Write your answers on the worksheet.

(1)



$$P = S + S + S + S + S$$

$$P = 75' + 40' + 40' + 12' + 12'$$

$$P = 179'$$

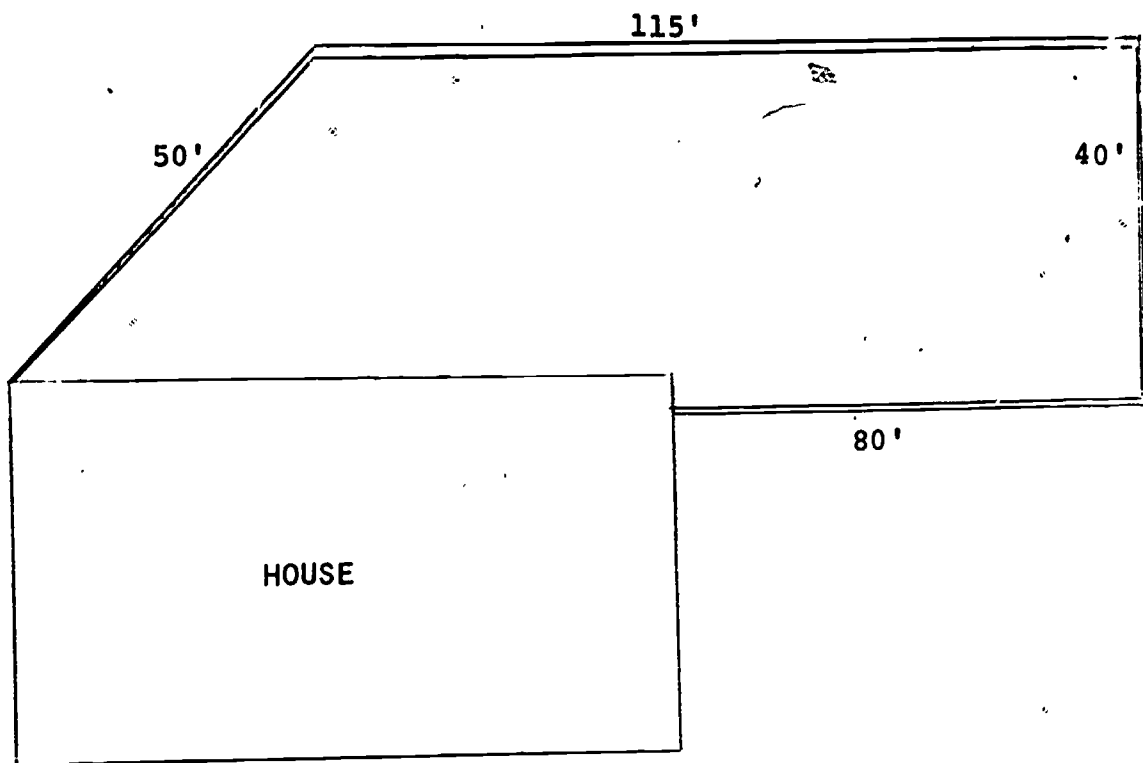
$$\text{Cost for wooden fence } 179' \times \$2.50 = \$447.50$$

$$\text{Cost for cement block fence } 179' \times \$4.00 = \$716.00$$

$$\text{Cost for wire chain link fence } 179' \times \$2.00 = \$358.00$$

FENCING YARDS
(Continued)

Lesson 6



$$P = S + S + S + S$$

$$P = \underline{\hspace{2cm}}$$

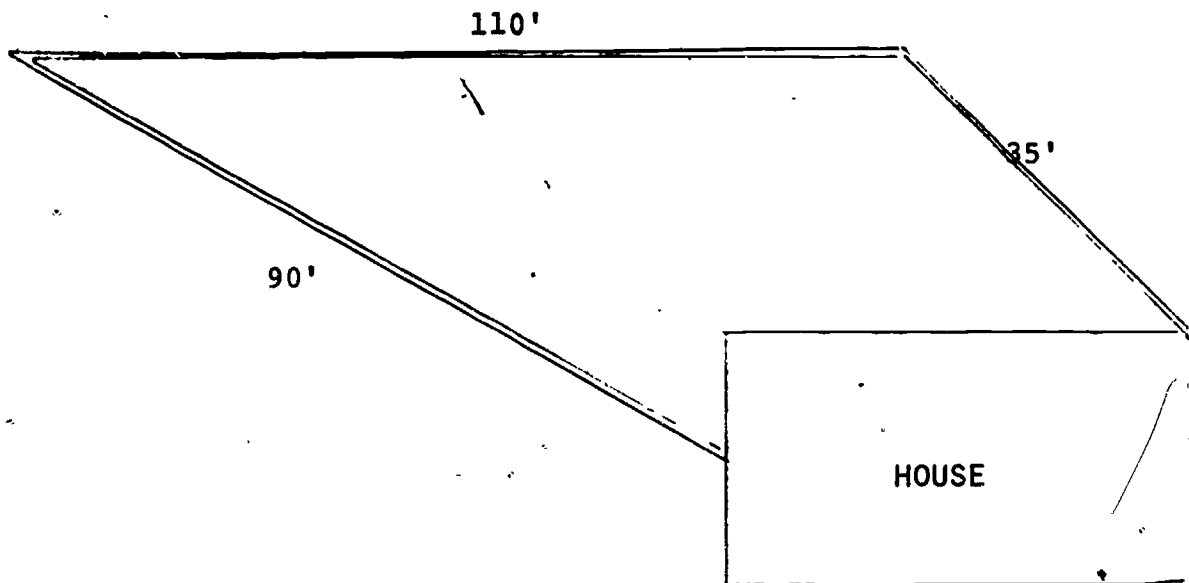
$$\text{Cost for wooden fence } P = \underline{\hspace{2cm}} \times \$2.50 = \underline{\hspace{2cm}}$$

$$\text{Cost for cement block fence } P = \underline{\hspace{2cm}} \times \$4.00 = \underline{\hspace{2cm}}$$

$$\text{Cost for wire chain link fence } P = \underline{\hspace{2cm}} \times \$2.00 = \underline{\hspace{2cm}}$$

FENCING YARDS
(Continued)

Lesson 6



$$P = S + S + S$$

$$P = \underline{\hspace{2cm}}$$

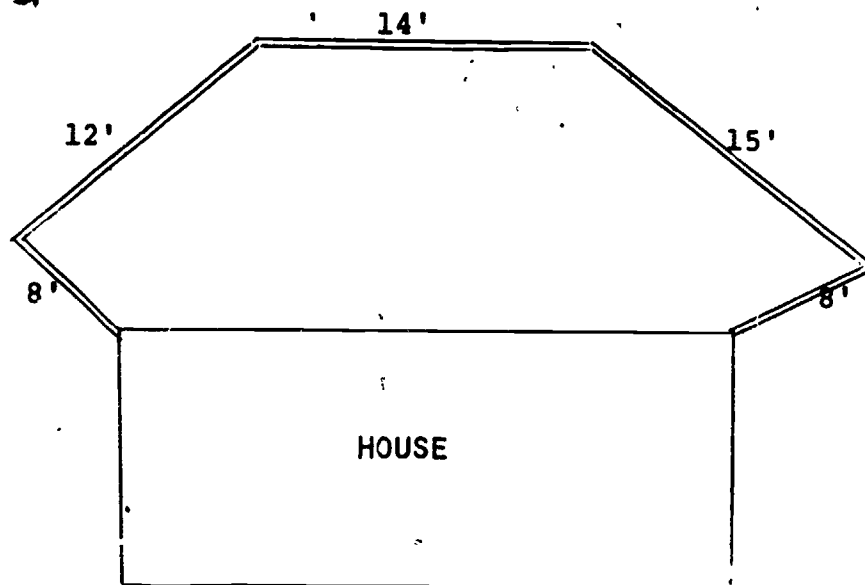
$$\text{Cost of wooden fence } P = \underline{\hspace{2cm}} \times \$2.50 = \underline{\hspace{2cm}}$$

$$\text{Cost of cement block fence } P = \underline{\hspace{2cm}} \times \$4.00 = \underline{\hspace{2cm}}$$

$$\text{Cost of wire chain link fence } P = \underline{\hspace{2cm}} \times \$2.00 = \underline{\hspace{2cm}}$$

FENCING YARDS
(Continued)

Lesson 6



$$P = S + S + S + S + S$$

$$P = \underline{\hspace{2cm}}$$

$$\text{Cost of wooden fence } P = \underline{\hspace{1cm}} \times \$2.50 = \underline{\hspace{2cm}}$$

$$\text{Cost of cement block fence } P = \underline{\hspace{1cm}} \times \$4.00 = \underline{\hspace{2cm}}$$

$$\text{Cost of wire chain link fence } P = \underline{\hspace{1cm}} \times \$2.00 = \underline{\hspace{2cm}}$$

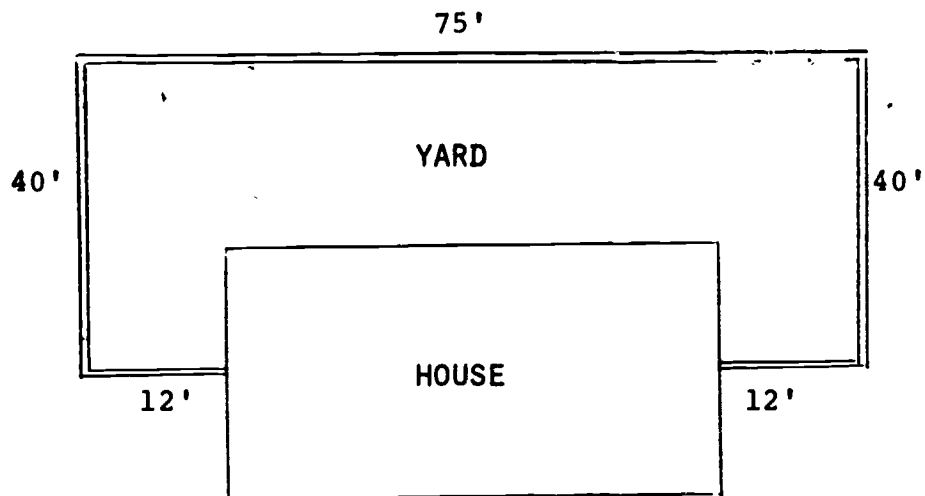
FENCING YARDS

INSTRUCTOR'S ANSWER KEY

Directions: Find the perimeters and the costs of fencing the yards with the three different types of materials:

Wooden fence	\$2.50 foot
Cement block fence	\$4.00 ft
Wire chain link fence	\$2.00 ft

The first problem is done for you as an example.
Use scratch paper if necessary. Write your answers on the worksheet.



$$P = S + S + S + S + S$$

$$P = 75' + 40' + 40' + 12' + 12'$$

$$P = 179'$$

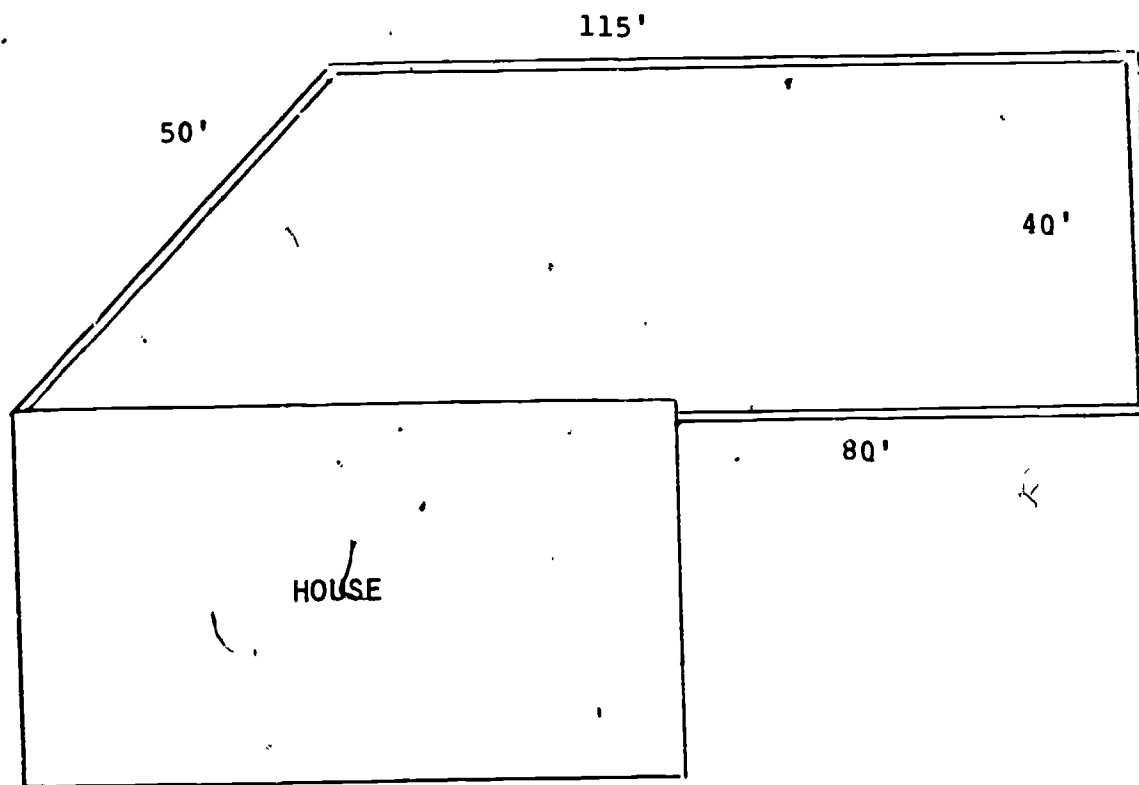
$$\text{Cost for wooden fence } 179' \times \$2.50 = \$447.50$$

$$\text{Cost for cement block fence } 179' \times \$4.00 = \$716.00$$

$$\text{Cost for wire chain link fence } 179' \times \$2.00 = \$358.00$$

FENCING YARDS
INSTRUCTOR'S ANSWER KEY
(Continued)

Lesson 6



$$P = S + S + S + S$$

$$P = \underline{285'}$$

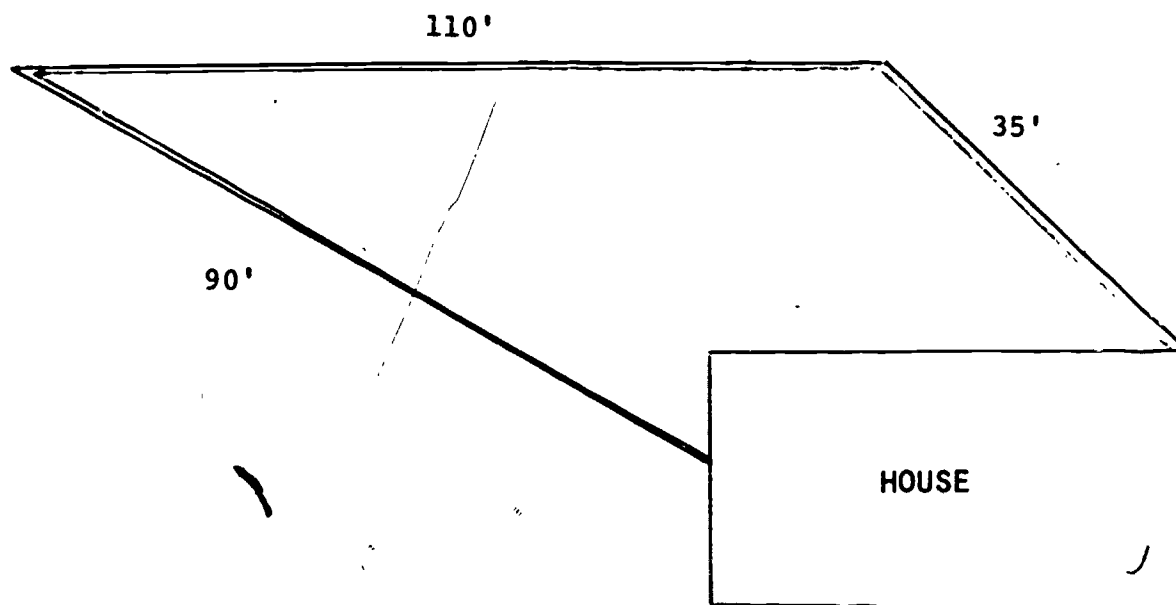
$$\text{Cost for wooden fence } P = \underline{285'} \times \$2.50 = \$712.50$$

$$\text{Cost for cement block fence } P = \underline{285'} \times \$4.00 = \$1140.00$$

$$\text{Cost for wire chain link fence } P = \underline{285'} \times \$2.00 = \$570.00$$

FENCING YARDS
INSTRUCTOR'S ANSWER KEY
(Continued)

Lesson 6



$$P = S + S + S$$

$$P = \underline{235'}$$

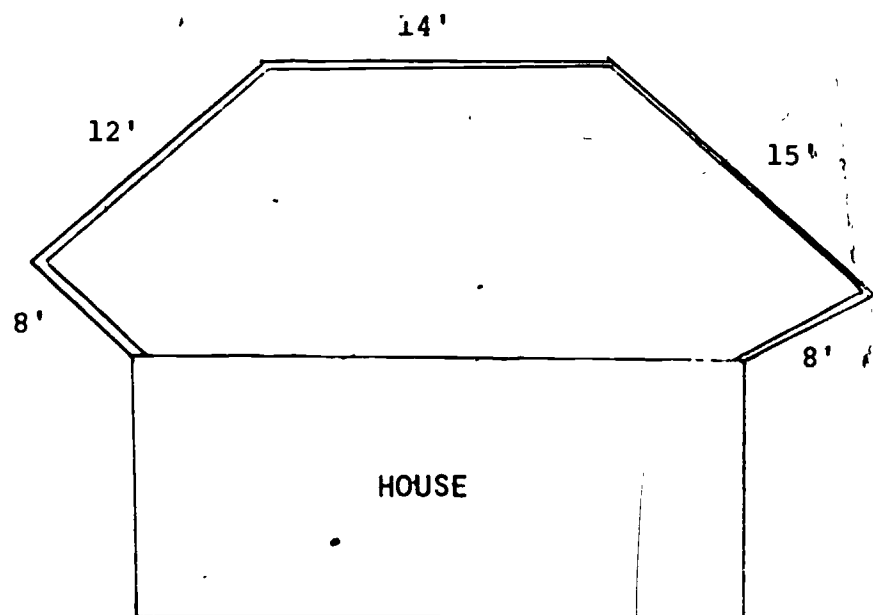
$$\text{Cost of wooden fence } P = \underline{235'} \times \$2.50 = \underline{\$587.50}$$

$$\text{Cost of cement block fence } P = \underline{235'} \times \$4.00 = \underline{\$940.00}$$

$$\text{Cost of wire chain link fence } P = \underline{235'} \times \$2.00 = \underline{\$470.00}$$

FENCING YARDS
INSTRUCTOR'S ANSWER KEY
(Continued)

Lesson 6



$$P = S + S + S + S$$

$$P = \underline{57'}$$

$$\text{Cost of wooden fence } P = \underline{57'} \times \$2.50 = \underline{\$142.50}$$

$$\text{Cost of cement block fence } P = \underline{57'} \times \$4.00 = \underline{\$228.00}$$

$$\text{Cost of wire chain link fence } P = \underline{57'} \times \$2.00 = \underline{\$114.00}$$

Name _____

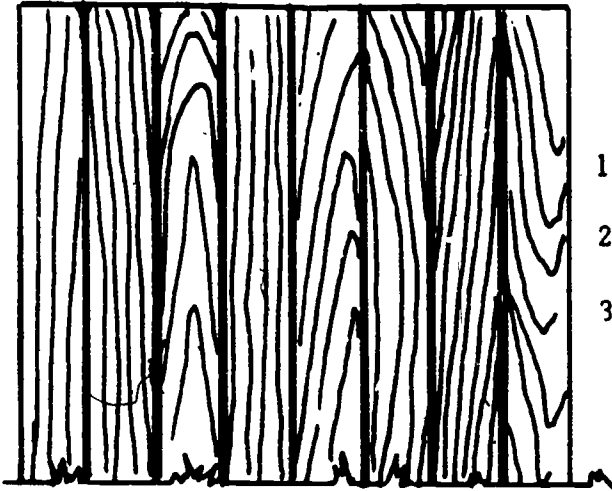
Date _____

Lesson 6

common fences

Directions: List the advantages and disadvantages you can think of for each type of fence

6'



WOODEN - (Cost \$2.50 per lineal foot)

Advantages

Disadvantages

1. _____

1. _____

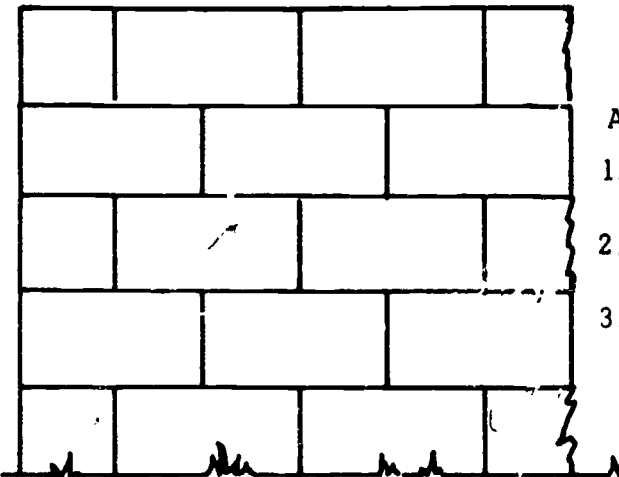
2. _____

2. _____

3. _____

3. _____

6'



CONCRETE BLOCK (Cost \$4.00 per lineal foot)

Advantages

Disadvantages

1. _____

1. _____

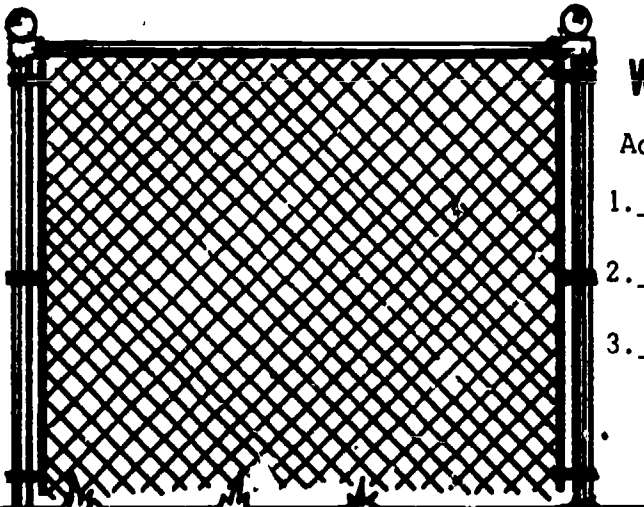
2. _____

2. _____

3. _____

3. _____

6'



WIRE LINK (Cost \$2.00 per lineal foot)

Advantages

Disadvantages

1. _____

1. _____

2. _____

2. _____

3. _____

3. _____

COMMON FENCES

INSTRUCTOR'S ANSWER KEY

Directions: List the advantages and disadvantages you can think of for each type of fence.

WOODEN

Advantages

Disadvantages

- | | |
|---|--|
| 1. <u>Not as costly as cement block</u> | 1. <u>Boards wear out with age</u> |
| 2. <u>Gives total privacy</u> | 2. <u>Requires upkeep and repair (paint)</u> |
| 3. <u>Gives a natural appearance</u> | 3. <u>Posts could rot out</u> |
| | 4. <u>Weeds and grass can grow under fence</u> |

CONCRETE BLOCK

Advantages.

Disadvantages

- | | |
|---|---------------------------------|
| 1. <u>Very attractive</u> | 1. <u>High cost</u> |
| 2. <u>Very sturdy</u> | 2. <u>Could settle or crack</u> |
| 3. <u>Requires little or no repair on maintenance</u> | 3. _____ |
| 4. <u>Long lasting</u> | |
| 5. <u>Gives total privacy</u> | |

WIRE CHAIN LINK

Advantages

Disadvantages

- | | |
|---|---|
| 1. <u>Cheapest cost</u> | 1. <u>You can see through it (lacks privacy)</u> |
| 2. <u>Long lasting</u> | 2. <u>May not look as nice</u> |
| 3. <u>No repair or maintenance required</u> | 3. <u>Weeds and grass can grow under and in between the wires</u> |

COST OF LAYING CARPET

LESSON SEVEN

CONCEPTS

Determining area of a room

Computing the cost of carpeting a room

PERFORMANCE OBJECTIVE

Given a home improvement project, the learner will determine the cost of buying carpet.

LESSON TIME

60 minutes

PREREQUISITE KNOWLEDGE

Understanding of square feet

Understanding the multiplication of whole numbers, fractions, and decimals to the thousandths

Understanding the division of whole numbers, fractions, and decimals (to the thousandths)

RESOURCES REQUIRED

FOUND WITHIN LESSON	ACQUIRED BY INSTRUCTOR
Worksheet masters: <i>Squares for Area</i> <i>Determining the Cost</i> <i>of Carpeting Rooms</i> Assessment item	

INSTRUCTOR PREPARATION TASKS

List on the chalkboard the sample room and dimensions found in the lesson.

Duplicate the following items for each learner:

1. *Squares for Area*
2. *Determining the Cost of Carpeting Rooms*
3. Assessment item

INSTRUCTIONAL PROCEDURES

INTRODUCTION

In the previous lesson experiences were provided for the learners to determine the cost of fencing yards. The learners found the perimeters of yards and determined the cost of fencing yards with different types of materials.

The purpose of this lesson is to provide experiences to determine the price of carpeting rooms. The learners will determine the area of rooms in square feet, change square feet to square yards, and determine the cost of carpeting the rooms. This lesson is another in the series related to home improvement and maintenance.

Tell the learners that in this lesson, they are going to determine the price of carpeting rooms in the house they have bought.

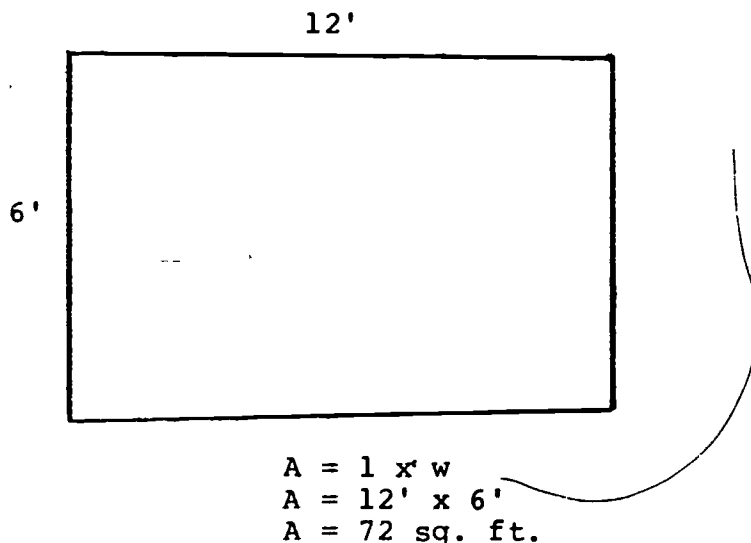
Review with the learners the concept of area taught in Lesson 5.

Write the formula $A = l \times w$ on the chalkboard. Under the formula write Area = length times width. Ask the learners if they remember how to apply this formula to finding the area of a room.

Desired response:

Yes, measure the length and width of the room, and multiply these two dimensions. This will give you the area of the room.

Refer to the chalkboard and provide the learners with this example:



- Remind the learners that the answer to an area problem is always in a square unit of measure. Also when people talk about room size, they usually use feet as the unit of measure. For example, a room might be 10' x 12' or 15' x 20'.

TASKS

Distribute the worksheet *Squares for Area* to the learners. Tell the learners that the large square shown on the worksheet represents one square yard, which is the same as three feet on each side.

Tell the learners to follow the directions and complete the worksheet. Circulate among the learners and provide assistance when needed.

When the learners have completed the worksheet, ask them how many square feet are in a square yard.

Desired response:

Nine square feet in one square yard

Explain to the learners that in finding out the amount of carpeting for a room it is necessary to change the area in square feet to square yards because carpeting is sold in square yards.

Refer to the sample 12' x 6' room shown on the chalk-board. Provide the learners with the following example for determining the number of square yards of carpeting:

1. Measure the length and width of the room
12' x 6'
2. Use the formula $A = l \times w$ and find the area of the room, $A = 12' \times 6'$, $A = 72$ square feet.
3. Divide the area in square feet by nine to determine the number of square yards of floor space. $72 \div 9 = 8$ square yards.

Explain to the learners that to determine the price of carpeting for a room, simply multiply the room size in square yards by the price per yard of carpeting. When carpeting is sold, the price per yard includes the cost of padding and laying it in the house.

Tell the learners that if they were to buy carpet that cost \$7 a yard, they would multiply the room size in square yards (8 square yards) by the \$7. Therefore, the cost to carpet this room would be $8 \times \$7$, or \$56.

Distribute the worksheet *Determining the Cost of Carpeting Rooms* to the learners. Tell the learners that they are to find the area of each room in square yards and determine the cost of laying different prices of carpeting in this room. The first problem on the worksheet is completed for you as an example. Circulate among the learners and provide assistance when needed.

When the learners have completed the worksheets, collect, correct, and return them.

SUMMARY

Ask the learners to measure the classroom and determine the cost of carpeting at \$6 a yard.

Review with the learners that the purpose of this lesson was to determine the cost of carpeting for various sizes of rooms. In the next lesson experiences will be provided for determining the costs of laying cement patios and sidewalks.

ASSESSMENT PROCEDURES

DESCRIPTION

A multiple-choice item is used to assess achievement of the objective.

DIRECTIONS

The learners will read the item and record their responses. Assistance with vocabulary may be given by the instructor.

KEY

b

Name _____

Date _____

Lesson 7

ASSESSMENT ITEM

You are carpeting a bedroom that measures 9' x 10'.
The carpet that you have selected costs \$7 a yard.
What is the cost of the carpet for the bedroom?

_____ a. \$50

_____ b. \$70

_____ c. \$75

_____ d. \$95

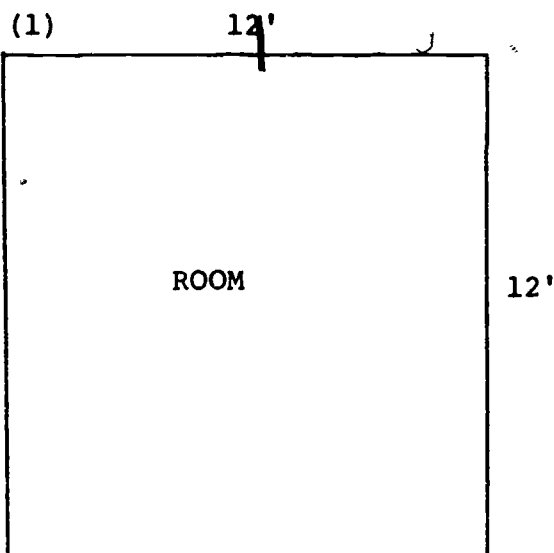
Name _____

Date _____

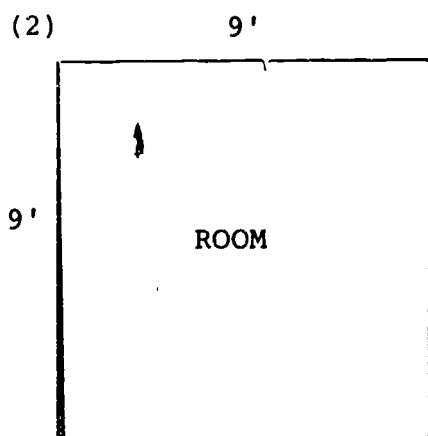
Lesson 7

DETERMINING THE COST OF CARPETING ROOMS

Directions: Find the area of each room in square yards and determine the cost of laying carpets of two different prices in the room. One carpet is priced at \$6 per yard, and the other carpet is priced at \$8 per yard. The first problem is done for you as an example.



$$\begin{aligned}
 A &= l \times w \\
 A &= 12' \times 12' = 144 \text{ square feet} \\
 A &= 144' \div 9 \\
 A &= 16 \text{ square yards} \\
 \text{Cost of carpet} &- 16 \times \$6 = \$96 \\
 \text{Cost of carpet} &- 16 \times \$8 = \$128
 \end{aligned}$$



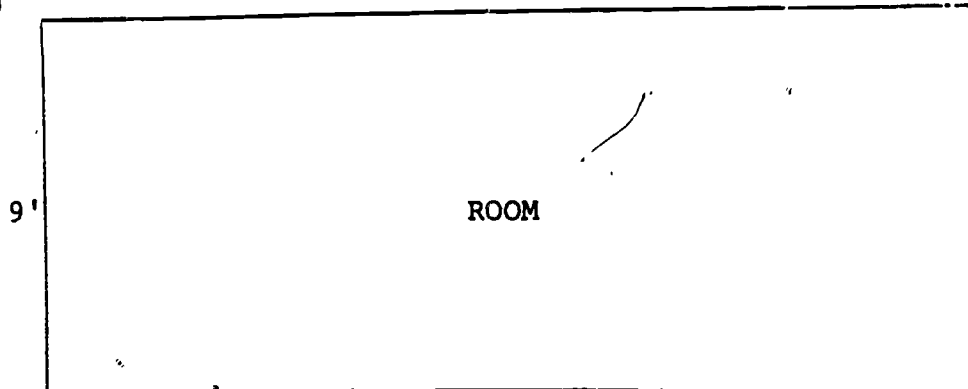
$$\begin{aligned}
 A &= l \times w \\
 A &= \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ square feet} \\
 A &= \underline{\hspace{1cm}} \div 9 \\
 A &= \underline{\hspace{1cm}} \text{ square yards} \\
 \text{Cost of carpet} &- \underline{\hspace{1cm}} \times \$6 = \underline{\hspace{1cm}} \\
 \text{Cost of carpet} &- \underline{\hspace{1cm}} \times \$8 = \underline{\hspace{1cm}}
 \end{aligned}$$

DETERMINING THE COST OF
CARPETING ROOMS
(Continued)

Lesson 7

(3)

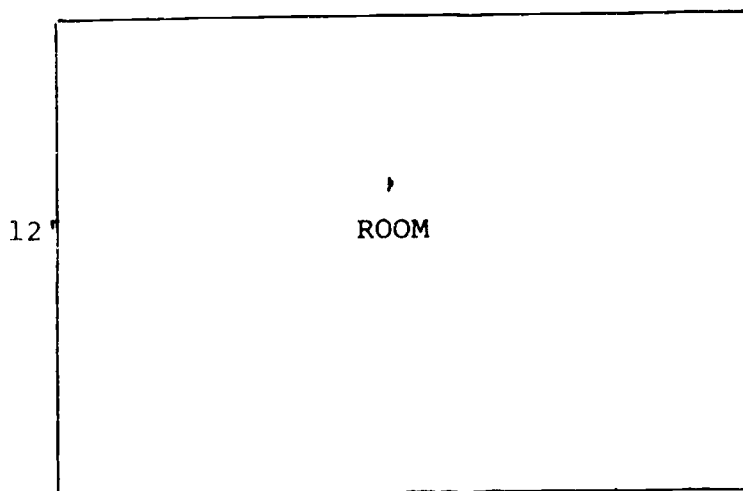
24'



$$\begin{aligned}
 A &= l \times w \\
 A &= \underline{\quad} \times \underline{\quad} = \underline{\quad} \text{ square feet} \\
 A &= \underline{\quad} \div 9 \\
 A &= \underline{\quad} \text{ square yards} \\
 \text{Cost of carpet} &- \underline{\quad} \times \$6 = \underline{\quad} \\
 \text{Cost of carpet} &- \underline{\quad} \times \$8 = \underline{\quad}
 \end{aligned}$$

(4)

18'

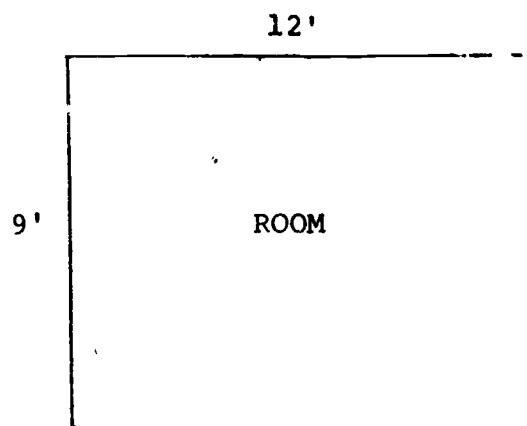


$$\begin{aligned}
 A &= l \times w \\
 A &= \underline{\quad} \times \underline{\quad} = \underline{\quad} \text{ square feet} \\
 A &= \underline{\quad} \div 9 \\
 A &= \underline{\quad} \text{ square yards} \\
 \text{Cost of carpet} &- \underline{\quad} \times \$6 = \underline{\quad} \\
 \text{Cost of carpet} &- \underline{\quad} \times \$8 = \underline{\quad}
 \end{aligned}$$

DETERMINING THE COST OF
CARPETING ROOMS
(Continued)

Lesson 7

(5)



$$A = l \times w$$

$$A = \underline{\quad} \times \underline{\quad} = \underline{\quad} \text{ square feet}$$

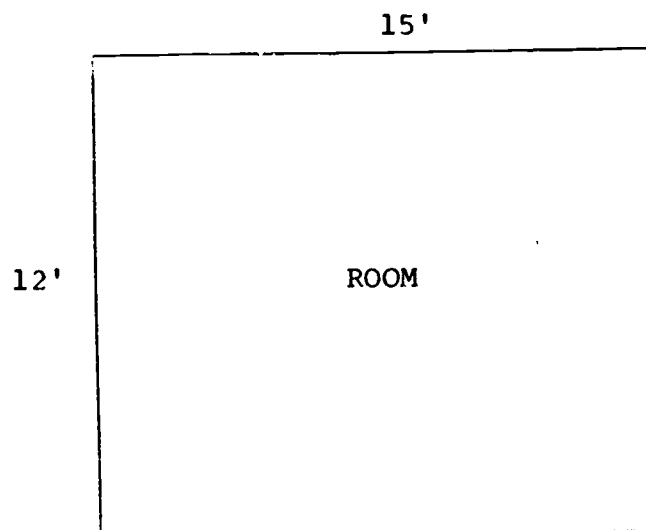
$$A = \underline{\quad}$$

$$A = \underline{\quad} \text{ square yards}$$

$$\text{Cost of carpet} - \underline{\quad} \times \$6 = \underline{\quad}$$

$$\text{Cost of carpet} - \underline{\quad} \times \$8 = \underline{\quad}$$

(6)



$$A = l \times w$$

$$A = \underline{\quad} \times \underline{\quad} = \underline{\quad} \text{ square feet}$$

$$A = \underline{\quad}$$

$$A = \underline{\quad} \text{ square yards}$$

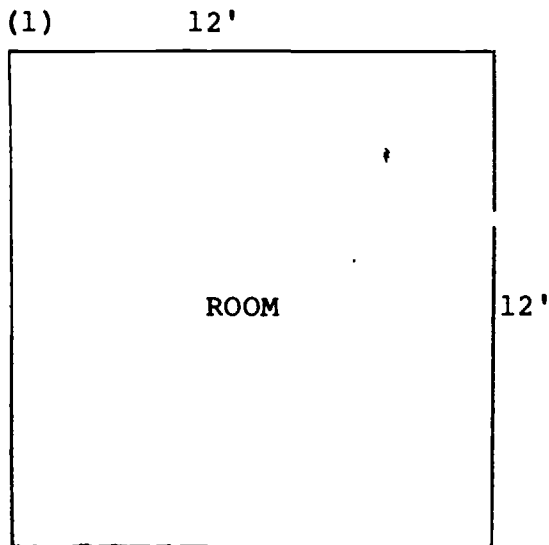
$$\text{Cost of carpet} - \underline{\quad} \times \$6 = \underline{\quad}$$

$$\text{Cost of carpet} - \underline{\quad} \times \$8 = \underline{\quad}$$

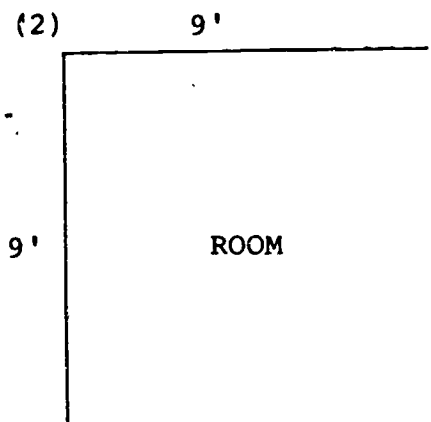
DETERMINING THE COST OF CARPETING ROOMS

INSTRUCTOR'S ANSWER KEY

Directions: Find the area of each room in square yards and determine the cost of laying carpets of two different prices in the room. One carpet is priced at \$6 per yard, and the other carpet is priced at \$8 per yard. The first problem is done for you as an example.



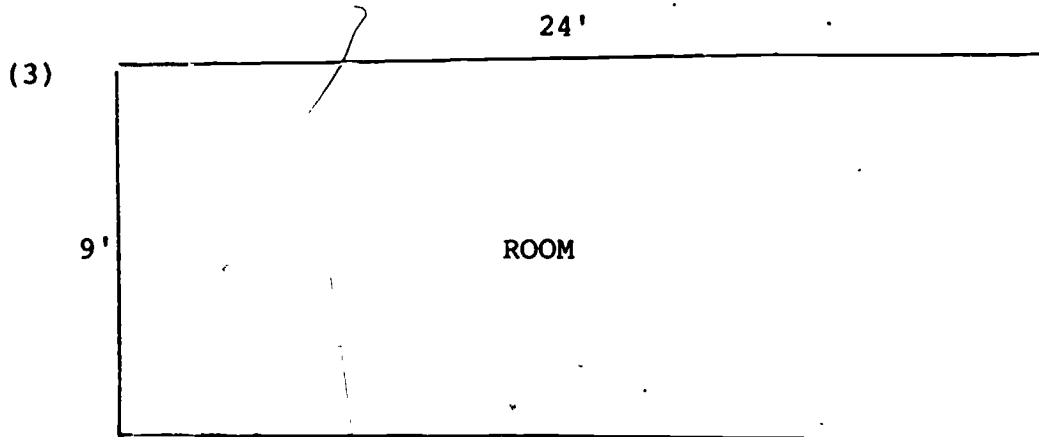
$$\begin{aligned}
 A &= l \times w \\
 A &= 12' \times 12' = 144 \text{ square feet} \\
 A &= 144' \div 9 \\
 A &= 16 \text{ square yards} \\
 \text{Cost of carpet} &- 16 \times \$6 = \$96 \\
 \text{Cost of carpet} &- 16 \times \$8 = \$128
 \end{aligned}$$



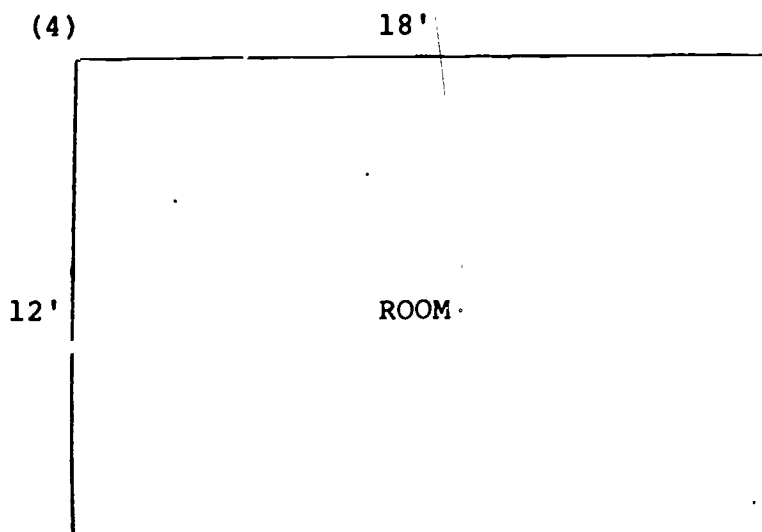
$$\begin{aligned}
 A &= l \times w \\
 A &= 9 \times 9 = 81 \text{ square feet} \\
 A &= \frac{81'}{9} \div 9 \\
 A &= 9 \text{ square yards} \\
 \text{Cost of carpet} &- \frac{9}{9} \times \$6 = \$54 \\
 \text{Cost of carpet} &- \frac{9}{9} \times \$8 = \$72
 \end{aligned}$$

DETERMINING THE COST OF
CARPETING ROOMS
INSTRUCTOR'S ANSWER KEY
(Continued)

Lesson 7



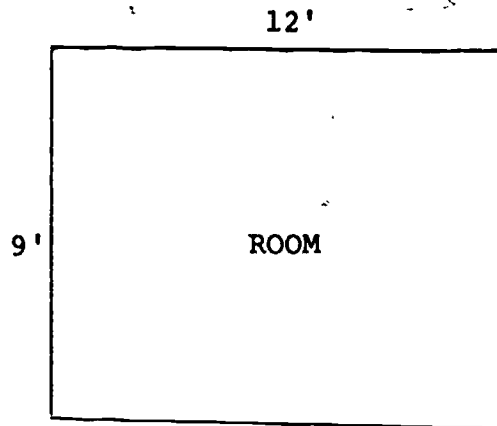
$$\begin{aligned}
 A &= l \times w \\
 A &= 9 \times 24 = 216 \text{ square feet} \\
 A &= \frac{216}{9} \\
 A &= 24 \text{ square yards} \\
 \text{Cost of carpet} &- \frac{24}{24} \times \$6 = \$144 \\
 \text{Cost of carpet} &- \frac{24}{24} \times \$8 = \$192
 \end{aligned}$$



$$\begin{aligned}
 A &= l \times w \\
 A &= 12 \times 18 = 216 \text{ square feet} \\
 A &= \frac{216}{9} \\
 A &= 24 \text{ square yards} \\
 \text{Cost of carpet} &- \frac{24}{24} \times \$6 = \$144 \\
 \text{Cost of carpet} &= \frac{24}{24} \times \$8 = \$192
 \end{aligned}$$

DETERMINING THE COST OF
CARPETING ROOMS
INSTRUCTOR'S ANSWER KEY
(Continued)

(5)



$$A = l \times w$$

$$A = 9 \times 12 = 108 \text{ square feet}$$

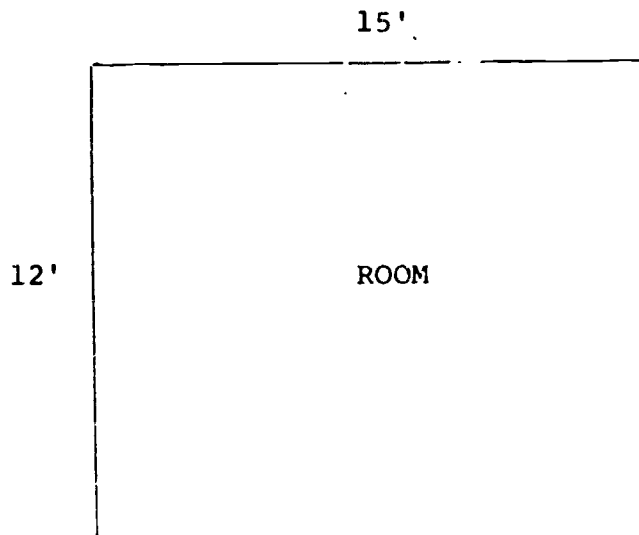
$$A = \frac{108}{9}$$

$$A = 12 \text{ square yards}$$

$$\text{Cost of carpet} = 12 \times \$6 = \$72$$

$$\text{Cost of carpet} = 12 \times \$8 = \$96$$

(6)



$$A = l \times w$$

$$A = 12 \times 15 = 180 \text{ square feet}$$

$$A = \frac{180}{9}$$

$$A = 20 \text{ square yards}$$

$$\text{Cost of carpet} = 20 \times \$6 = \$120$$

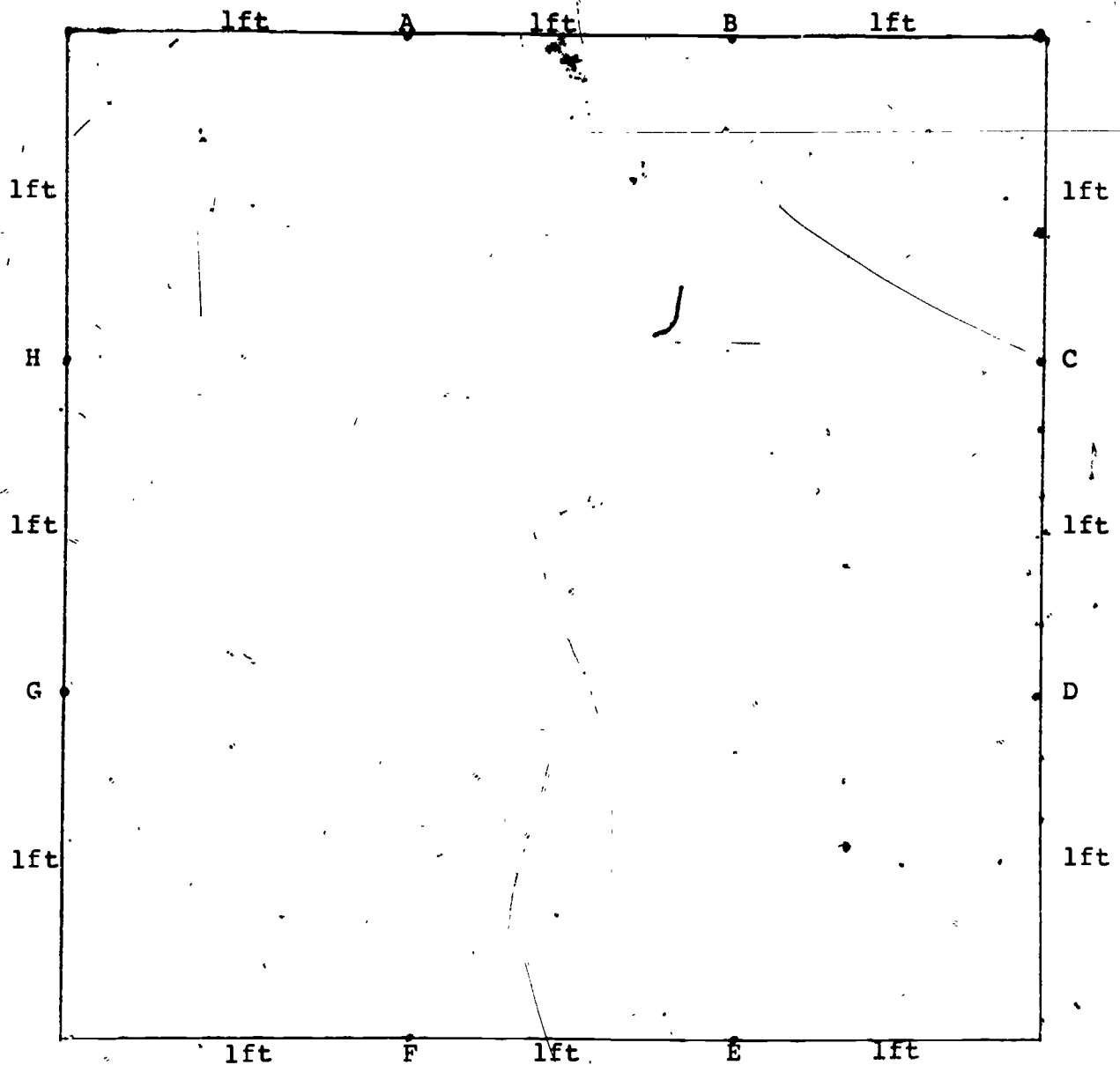
$$\text{Cost of carpet} = 20 \times \$8 = \$160$$

Name _____

Date _____

Lesson 7

SQUARES FOR AREA

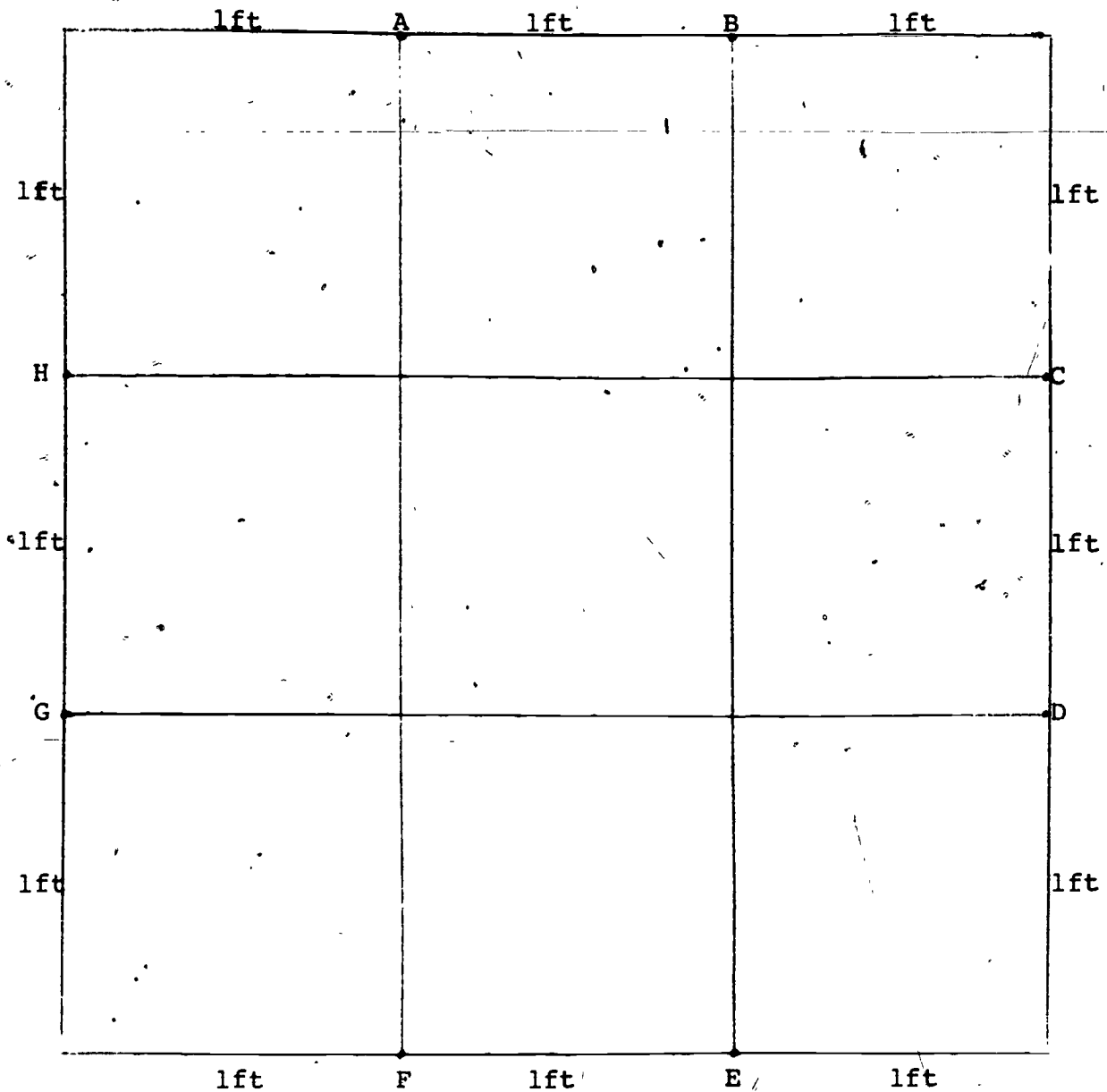


Directions:

1. Using a ruler, draw a straight line to connect the following points: A to F, B to E, C to H, and D to G.
2. Each side of the big square measures 1 yard, or _____ feet.
3. The big square measures 1 yard on each side, which is called a square yard. If you count the number of smaller squares made by drawing lines, you will find there are _____ square feet in 1 square yard.

SQUARES FOR AREA

INSTRUCTOR'S ANSWER KEY



Directions:

1. Using a ruler, draw a straight line to connect the following points: A to F, B to E, C to H, and D to G.
2. Each side of the big square measures 1 yard, or 3 feet.
3. The big square measures 1 yard on each side, which is called a square yard. If you count the number of smaller squares made by drawing lines, you will find there are 9 square feet in 1 square yard.

DETERMINING THE COSTS OF CONCRETE HOME PROJECTS

LESSON EIGHT

CONCEPTS

Determining area and volume

Computing the costs of concrete sidewalks and patios

PERFORMANCE OBJECTIVE

Given a home improvement project, the learner will determine the cost of concrete for a patio.

LESSON TIME

60 minutes

NEW VOCABULARY

concrete - a mixture of cement, sand, rocks and water which when it dries is very hard.

PREREQUISITE KNOWLEDGE

Understanding of square feet and square yards

Some knowledge of cubic measure.

Understanding the division of whole numbers, fractions, and decimals (to thousandths.)

Understanding the multiplication of whole numbers, fractions, and decimals (to thousandths).

RESOURCES REQUIRED

FOUND WITHIN LESSON	ACQUIRED BY INSTRUCTOR
Information sheet master: <i>Volume and a Cubic Yard</i>	
Worksheet master: <i>Finding the Costs of Concrete for Sidewalks and Patios</i>	
Assessment item	

INSTRUCTOR PREPARATION TASKS

List on the chalkboard the example and formulas for perimeter and area found in the lesson.

Duplicate the following items for each learner:

1. *Volume and A Cubic Yard*
2. *Finding the Costs of Concrete for Sidewalks and Patios*
3. Assessment item

INSTRUCTIONAL PROCEDURES

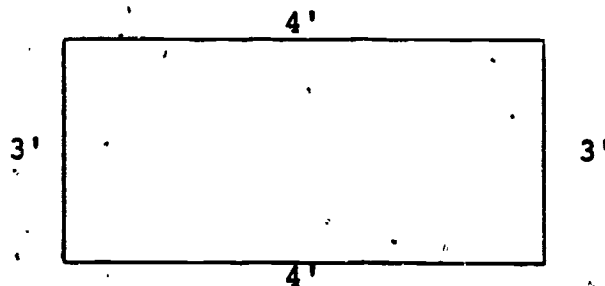
INTRODUCTION

In the previous lesson experiences were provided for the learners to determine the cost of carpeting floors.

The purpose of this activity is for the learners to

determine the cost of laying concrete patios and sidewalks. The learners will first determine cubic yards and compute cost of different sized patios and sidewalks.

List the following diagram and formulas on the chalkboard.



$$P = S + S + S + S, \quad P = 4 + 3 + 4 + 3, \quad P = 14'$$
$$A = L \times W, \quad A = 4' \times 3', \quad A = 12 \text{ square feet}$$

Tell the learners that in this lesson they will have experiences in determining the cost of sidewalks and patios. This will be another lesson relating to home improvement and maintenance.

Ask the learners if anyone knows what the word concrete means?

Desired response:

1. Yes, something solid
2. Yes, a building material

Inform the learners that concrete building material is the subject of this lesson. Explain that concrete is a mixture of cement, sand, rocks and water which is very hard when it dries.

Ask the learners if they can think of things made of concrete.

Possible responses:

1. Bridges
2. Big buildings
3. Statues
4. Streets
5. Houses
6. Sidewalks
7. Patios

Explain that concrete will be the material used for the building of sidewalks and patios in this lesson.

TASKS

Explain to the learners that in the previous lessons they have learned to use formulas for finding perimeter and area. These are listed on the chalkboard. Tell the learners that to find perimeter, they add the length of the sides. To find the area of a square or rectangle, they multiply the length times the width. Explain that to determine the amount of concrete needed for a sidewalk or patio, another formula is needed.

Inform the learners that in finding perimeter, they were only concerned with the length dimension. In finding area, they were concerned with the length and the width. Relate to the learners that when they find the amount of concrete needed for a patio or sidewalk, three dimensions must be considered. They must consider the length, width and height (thickness) of the concrete. When all three dimensions (length, width and height) are considered, it is called volume. An ice cube and a building block both have volume. It is necessary to compute volume when figuring the amount of concrete needed for a patio or sidewalk.

Distribute the information sheet *Volume and A Cubic Yard* to the learners. Ask the learners to look at the example that looks like a box and represents four feet in length, two feet in width and one foot in height. Ask the learners how many one-foot cubes or blocks they see in the figure.

Desired response: Eight

Tell the learners that since each block has a one-foot length, one-foot width and one-foot height, it is called one cubic foot. There are eight cubic feet in the figure. This is called the volume of the figure. The formula for finding volume is $V = l \times w \times h$. In other words, multiply the length, which is four feet, by the width, which is two feet. This would be eight feet. Then multiply the eight feet by the height, which is one foot. This would give a volume of eight cubic feet. Inform the learners that to determine the amount of concrete needed for a patio or sidewalk, they must

first find the volume to be concreted in cubic feet. Explain that concrete is not sold in cubic feet, but in cubic yards. Therefore, once the volume is determined in cubic feet, it must be changed to cubic yards.

Ask the learners to look at the cubic yard shown at the bottom of the information sheet *Volume and A Cubic Yard*. Tell the learners that since there are three feet in a yard, a cubic yard measures three feet in length, three feet in width, and three feet in height.

Ask the learners to apply the formula for volume and determine the number of cubic feet in a cubic yard. The number of cubic feet in a cubic yard would be 27. Explain to the learners that once the volume of a sidewalk or patio is figured in cubic feet, it is divided by 27 to determine the number of cubic yards of concrete needed.

Tell the learners that the price for a cubic yard of concrete changes from time to time like other building materials, but in this lesson they are to use the price of \$21 a cubic yard.

Distribute the worksheet *Finding the Costs of Concrete for Sidewalks and Patios* to the learners. Instruct the learners to follow carefully as you go over the first problem together. Using the formula for volume, insert the given dimensions and proceed as follows:

1. $V = l \times w \times h$
2. $V = 30' \times 10' \times 1/2'$
3. $V = (30' \times 10') \times 1/2'$
4. $V = 300' \times 1/2'$
5. $V = 150'$
6. $V = 150' \div 27$
7. $V = 5 \frac{5}{9}$ cubic yards
8. $V = 6$ COST OF CONCRETE - $6 \times \$21 = \126.00

$$\begin{array}{r} 5 \frac{15}{27} = 15 \frac{5}{9} \\ 27 \overline{)150} \\ \underline{135} \\ 15 \end{array}$$

Tell the learners that after they have divided by 27 to get the cubic yards, their answer will probably have a fraction as a remainder. When this occurs, round off to the next whole number.

For example, if the exact cubic yards were $5 \frac{5}{9}$, round off to 6, or if the exact cubic yards were $10 \frac{1}{3}$, round off to 11.

Circulate among the learners and provide assistance as the learners work the problems on their worksheets.

When the learners have completed their worksheets, collect, correct, and return them.

SUMMARY

Re-emphasize to the learners that in this lesson they have determined the cost of concrete for sidewalks and patios. Tell the learners that if they hired a person to lay the concrete for them it would certainly cost a great deal more money.

Ask the learners whether they can think of other times when it might be necessary or useful to pour concrete.

Possible responses:

1. Footings for block fences
2. Footings for a house
3. Footing for a fireplace
4. Foundation for a storage room
5. Deck surrounding a swimming pool
6. Securing posts for a fence

In the next lesson experiences will be provided for the learners to determine the cost of painting the inside of a house.

ASSESSMENT PROCEDURES

DESCRIPTION

A multiple-choice item is used to assess achievement of the objective.

DIRECTIONS

The learner will read the item and record their responses. Assistance with vocabulary may be given by the instructor.

KEY

C

Name _____

Date _____

Lesson 8

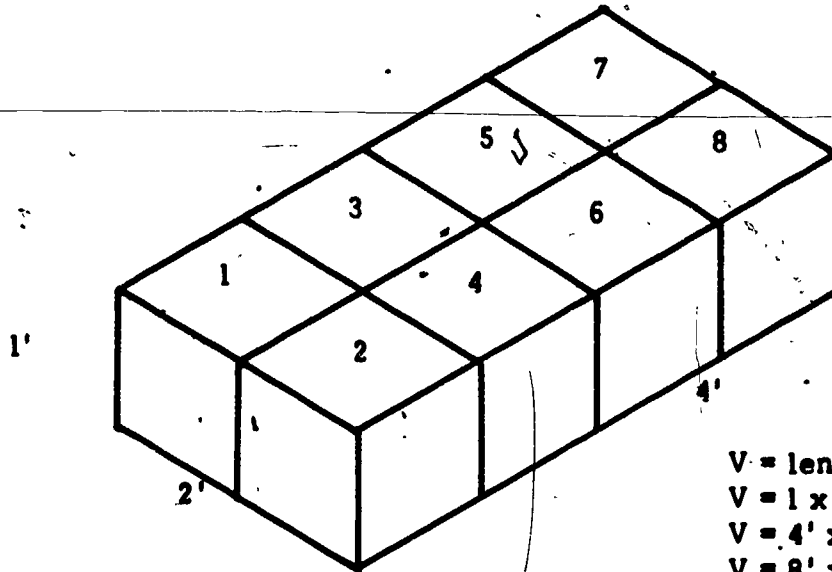
ASSESSMENT ITEM

You are building a concrete patio that measures 30' long, 11' wide and 4" ($\frac{1}{3}$ ') thick. Concrete costs \$20 per cubic yard. Which amounts most closely shows the cost of the concrete for the patio?

- ☐ a. \$ 60
- ☐ b. \$ 80
- ☐ c. \$100
- ☐ d. \$120

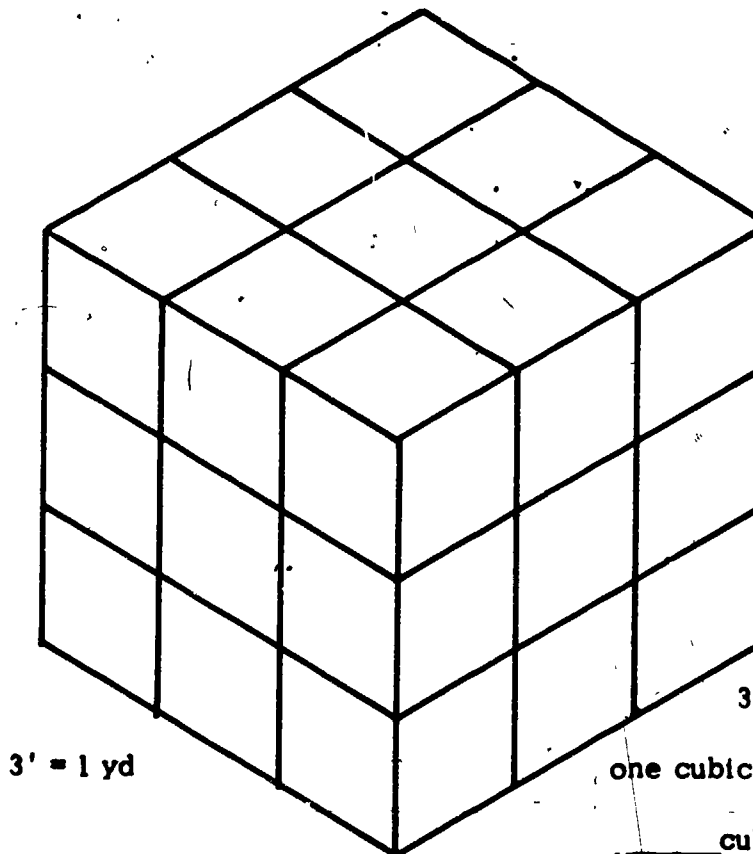
VOLUME AND A CUBIC YARD

Example



$$\begin{aligned} V &= \text{length} \times \text{width} \times \text{height} \\ V &= l \times w \times h \\ V &= 4' \times 2' \times 1' \\ V &= 8' \times 1' \\ V &= 8 \text{ cubic feet} \end{aligned}$$

3' = 1 yd



$$V = l \times w \times h$$

3 = 1 yd

3' = 1 yd

one cubic yard =
cubic feet.

Name _____

Date _____

Lesson 3

FINDING THE COSTS OF CONCRETE FOR SIDEWALKS AND PATIOS

Directions: Find the volume in cubic feet, divide by 27 to determine cubic yards! Multiply by \$21 to find the cost of concrete.

1.



$$\begin{aligned}
 V &= l \times w \times h \\
 V &= 30' \times 10' \times 1/2' \\
 V &= (30' \times 10') \times 1/2' \\
 V &= 300' \times 1/2' \\
 V &= 150' \text{ cubic feet} \\
 V &= 150' \div 27 \\
 V &= 5 \frac{5}{9} \text{ cubic yards} \\
 V &= 6 \text{ cubic yards}
 \end{aligned}$$

COST OF CONCRETE - 6 cubic yards x \$21 = \$126

2. Sidewalk with dimensions 40' in length, 3' in width and 1/3' in height or thickness,

$$\begin{aligned}
 V &= l \times w \times h \\
 V &= 40' \times 3' \times 1/3' \\
 V &= \\
 V &= \\
 V &= \\
 V &= \\
 V &= \\
 V &=
 \end{aligned}$$

COST OF CONCRETE - cubic yards x \$21 =

FINDING THE COSTS OF CONCRETE FOR SIDEWALKS AND PATIOS - (Continued)

3. Patio with dimensions 20' in length, 20' in width and 1/2' in height or thickness.

$$\begin{aligned} V &= l \times w \times h \\ V &= 20' \times 20' \times 1/2' \\ V &= \\ V &= \\ V &= \\ V &= \\ V &= \\ V &= \end{aligned}$$

COST OF CONCRETE - cubic yards x \$21 =

4. Sidewalk with dimensions 30' in length, 4' in width and 1/3' in height or thickness.

$$\begin{aligned} V &= l \times w \times h \\ V &= 30' \times 4' \times 1/3' \\ V &= \\ V &= \\ V &= \\ V &= \\ V &= \\ V &= \end{aligned}$$

COST OF CONCRETE - cubic yards x \$21 =

5. Patio with dimensions 15' in length, 12' in width and 1' in height or thickness.

$$\begin{aligned} V &= l \times w \times h \\ V &= 15' \times 12' \times 1' \\ V &= \\ V &= \\ V &= \\ V &= \\ V &= \\ V &= \end{aligned}$$

COST OF CONCRETE - cubic yards x \$21 =

FINDING THE COSTS OF CONCRETE FOR SIDEWALKS AND PATIOS (Continued)

6. Sidewalk with dimensions 20' in length, 2' in width and $\frac{3}{4}$ ' in height or thickness.

$$V = l \times w \times h$$

$$V = 20' \times 2' \times \frac{3}{4}'$$

$$V =$$

$$V =$$

$$V =$$

$$V =$$

$$V =$$

$$V =$$

COST OF CONCRETE - cubic yards \times \$21 =

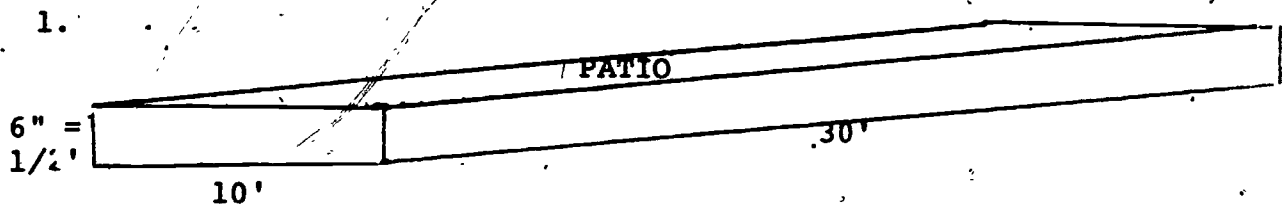
Name _____

Date _____

Lesson 8

FINDING THE COSTS OF CONCRETE FOR SIDEWALKS AND PATIOS INSTRUCTOR'S ANSWER KEY

Directions: Find the volume in cubic feet, divide by 27 to determine cubic yards. Multiply by \$21 to find the cost of concrete.



$$\begin{aligned} V &= l \times w \times h \\ V &= 30' \times 10' \times 1/2' \\ V &= (30' \times 10') \times 1/2' \\ V &= 300' \times 1/2' \\ V &= 150' \text{ cubic feet} \\ V &= 150' \div 27 \\ V &= 5 \frac{5}{9} \text{ cubic yards} \\ V &= 6 \text{ cubic yards} \end{aligned}$$

COST OF CONCRETE - 6 cubic yards x \$21 = \$126

2. Sidewalk with dimensions 40' in length, 3' in width and 1/3' in height or thickness.

$$\begin{aligned} V &= l \times w \times h \\ V &= 40' \times 3' \times 1/3' \\ V &= (40' \times 3') \times 1/3' \\ V &= 120' \times 1/3' \\ V &= 40' \text{ cubic feet} \\ V &= 40' \div 27 \\ V &= 1 \frac{13}{27} \text{ cubic yards} \\ V &= 2 \text{ cubic yards} \end{aligned}$$

COST OF CONCRETE - 2 cubic yards x \$21 = \$42

FINDING THE COSTS OF CONCRETE FOR SIDEWALKS AND PATIOS
INSTRUCTOR'S ANSWER KEY
(Continued)

3. Patio with dimensions 20' in length, 20' in width and 1/2' in height or thickness.

$$\begin{aligned} V &= l \times w \times h \\ V &= 20' \times 20' \times 1/2' \\ V &= (20' \times 20') \times 1/2' \\ V &= 400' \times 1/2' \\ V &= 200' \text{ cubic feet} \\ V &= 200' \div 27 \\ V &= 7 \frac{11}{27} \text{ cubic yards} \\ V &= 8 \text{ cubic yards} \end{aligned}$$

COST OF CONCRETE - 8 cubic yards x \$21 = \$168

4. Sidewalk with dimensions 30' in length, 4' in width and 1/3' in height or thickness.

$$\begin{aligned} V &= l \times w \times h \\ V &= 30' \times 4' \times 1/3' \\ V &= (30' \times 4') \times 1/3' \\ V &= 120' \times 1/3' \\ V &= 40' \text{ cubic feet} \\ V &= 40' \div 27 \\ V &= 1 \frac{13}{27} \text{ cubic yards} \\ V &= 2 \text{ cubic yards} \end{aligned}$$

COST OF CONCRETE - 2 cubic yards x \$21 = \$42

5. Patio with dimensions 15' in length, 12' in width and 1' in height or thickness.

$$\begin{aligned} V &= l \times w \times h \\ V &= 15' \times 12' \times 1' \\ V &= (15' \times 12') \times 1' \\ V &= 180' \times 1' \\ V &= 180' \text{ cubic feet} \\ V &= 180' \div 27 \\ V &= 6 \frac{2}{3} \text{ cubic yards} \\ V &= 7 \text{ cubic yards} \end{aligned}$$

COST OF CONCRETE - 7 cubic yards x \$21 = \$147

FINDING THE COSTS OF CONCRETE FOR SIDEWALKS AND PATIOS
INSTRUCTOR'S ANSWER KEY
(Continued)

6. Sidewalk with dimensions 20' in length, 2' in width and $\frac{3}{4}$ ' in height or thickness.

$$V = l \times w \times h$$

$$V = 20' \times 2' \times \frac{3}{4}'$$

$$V = (20' \times 2') \times \frac{3}{4}'$$

$$V = 40' \times \frac{3}{4}'$$

$$V = 30 \text{ cubic feet}$$

$$V = 30' \div 27$$

$$V = 1 \frac{1}{9} \text{ cubic yards}$$

$$V = 2 \text{ cubic yards}$$

$$\text{COST OF CONCRETE} - \underline{2 \text{ cubic yards}} \times \underline{\$21} = \underline{\$42}$$

PAINTING THE INSIDE OF A HOUSE

LESSON NINE

CONCEPT

Determining the cost of painting the inside of a house

PERFORMANCE OBJECTIVE

Given a home improvement project, the learner will determine the cost of painting rooms.

LESSON TIME

50 minutes

PREREQUISITE KNOWLEDGE

Understanding of area

Understanding of the multiplication of whole numbers, fractions, and decimals (to the thousandths)

RESOURCES REQUIRED

FOUND WITHIN LESSON

Worksheet master:
*Determining the Cost
of Painting the In-
side of a House*

Assessment item

ACQUIRED BY INSTRUCTOR

Cardboard box with
bottom cut out (approx-
imately 15" x 15" x 15")

INSTRUCTOR PREPARATION TASKS

Acquire a cardboard box (approximately 15" x 15" x 15") and cut the bottom out of it.

Write the formula $A = l \times w$ on the chalkboard. Underneath the formula, write Area = length times width.

Duplicate the following items for each learner:

1. *Determining the Cost of Painting the Inside of a House*
2. Assessment item

INSTRUCTIONAL PROCEDURES

INTRODUCTION

In the previous lesson experiences were provided for the learners to determine the cost of laying concrete for sidewalks and patios.

The purpose of this lesson is for the learners to determine the cost of painting rooms in a house. The intent of the lesson is also for the learners to understand reasons for painting as well as the main types of household paints.

Inform the learners that our next home project will be to paint the house they have bought. Ask the learners why people paint their houses.

Possible responses:

1. *It makes them look better.*
2. *Paint protects building materials.*
3. *Sometimes people like a change of color.*

Ask the learners if all paint is the same.

Possible responses:

1. *No. Prices are different.*
2. *No. Paint comes in different colors.*
3. *No. Some paint is used indoors and some outdoors.*

TASKS

Tell the learners that many times when people paint their houses they ask the paint salesman to determine the amount needed for them. Other people determine for themselves the amount of paint required for painting a house.

Explain to the learners that there are basically two different kinds of house paint, latex and enamel paint. Latex paint is made with a type of rubber. Enamel paint is made with oil.

Tell the learners that latex is easier to work with because it mixes with water. Enamel paint is harder to work with because it cannot be mixed with water but only with a substance such as paint thinner.

Inform the learners that for painting the house that they have bought they are to use a latex paint which costs \$5 a gallon. A gallon of this paint covers about 300 square feet.

Tell the learners that the first thing to be done is to find out how much paint to buy.

Hold up the cardboard box with the bottom cut out. Tell the learners to pretend that this box is a room. Ask the learners how many surfaces (walls and ceiling) inside the box must be painted.

Desired response: Five

Inform the learners that they must find out the area of the wall space and ceiling to determine the amount of paint needed to paint the room.

Refer to the chalkboard and the formula for area, $A = l \times w$. Tell the learners that they must find the area of each wall and the ceiling by using the formula for each surface. Once this is done the areas for each surface can be added together to determine the total surface area of the room to be painted.

Distribute the worksheet *Determining the Cost of Painting a House* to the learners. Inform the learners to look at Room A and do the following:

1. Determine the area of wall one by multiplying $8' \times 12'$.
2. Do the same for wall two.

3. Determine the area of wall three by multiplying $8' \times 15'$.
4. Do the same for wall four.
5. Determine the area of the ceiling by multiplying $12' \times 15'$.
6. Add the areas of the four walls and the ceiling to get the total area of Room A.
7. Go through the same procedure as before and find the total areas for Rooms B, C, D, and E.

Circulate among the learners and provide assistance when needed. When the learners have found the total areas for Rooms B, C, D, and E, tell them to do the following:

1. Add the total areas of Rooms A, B, C, D, and E to find the total area of the inside of the house to be painted.
2. Divide the total surface area of the house to be painted by 300. This is the amount of area one gallon of paint will cover.
3. The answer will not come out with an even amount of gallons. Round off to the next gallon. For example, if the number of gallons is $6\frac{1}{2}$, round off to 7.
4. Multiply the number of gallons of paint needed by \$5 to determine the cost of paint for the inside of the house.

When the learners have completed their worksheets, collect, correct, and return them.

SUMMARY

Tell the learners that painting is a project that almost everyone can do. Ask the learners to determine the area and the cost of painting their classroom.

The purpose of the next lesson will be to provide experiences for the learners to determine the cost of paneling walls in a house.

ASSESSMENT PROCEDURES

DESCRIPTION

A multiple-choice item is used to assess achievement of the objective.

DESCRIPTION

The learners will read the item and record their responses. Assistance with vocabulary may be given by the instructor.

KEY

C

Name _____

Date _____

Lesson 9

ASSESSMENT ITEM

You are painting a room that has four walls that measure 8' x 20'. The ceiling measures 20' x 20'. The paint you have selected covers 350 square feet per gallon. This paint costs \$6 per gallon. What is the cost of the paint for this room?

- _____ a. \$ 6
- _____ b. \$12
- _____ c. \$18
- _____ d. \$24

Name _____

Date _____

Lesson 9

DETERMINING THE COST OF PAINTING THE INSIDE OF A HOUSE

Directions: Find the area of each room to be painted. Total these areas and divide by 300, which is the area a gallon of paint will cover. Multiply this number by \$5. This will give you the cost of painting the inside of your house.

<u>Room A (Bedroom)</u>		<u>AREA</u>	
Wall (one)	8' x 12' =	<u>96</u>	square feet
Wall (two)	8' x 12' =	<u>96</u>	square feet
Wall (three)	8' x 15' =	<u>120</u>	square feet
Wall (four)	8' x 15' =	<u>120</u>	square feet
Ceiling (five)	12' x 15' =	<u>180</u>	square feet
		<u> </u>	square feet = Total area of Room A

<u>Room B (Bedroom)</u>			
Wall (one)	8' x 10' =	<u> </u>	square feet
Wall (two)	8' x 10' =	<u> </u>	square feet
Wall (three)	8' x 11' =	<u> </u>	square feet
Wall (four)	8' x 11' =	<u> </u>	square feet
Ceiling (five)	10' x 11' =	<u> </u>	square feet
		<u> </u>	square feet = Total area of Room B

DETERMINING THE COST OF PAINTING
THE INSIDE OF A HOUSE
(Continued)

Lesson 9

Room C (Kitchen)

Wall (one) 8' x 13' = _____ square feet

Wall (two) 8' x 13' = _____ square feet

Wall (three) 8' x 11' = _____ square feet

Wall (four) 8' x 11' = _____ square feet

Ceiling (five) 11' x 13' = _____ square feet

_____ square feet = Total area
of Room C

Room D (Bathroom)

Wall (one) 8' x 10' = _____ square feet

Wall (two) 8' x 10' = _____ square feet

Wall (three) 8' x 5' = _____ square feet

Wall (four) 8' x 5' = _____ square feet

Ceiling (five) 5' x 10' = _____ square feet

_____ square feet = Total area
of Room D

Room E (Living Room)

Wall (one) 8' x 15' = _____ square feet

Wall (two) 8' x 15' = _____ square feet

Wall (three) 8' x 17' = _____ square feet

Wall (four) 8' x 17' = _____ square feet

Ceiling (five) 15' x 17' = _____ square feet

_____ square feet = Total area
of Room C

DETERMINING THE COST OF PAINTING
THE INSIDE OF A HOUSE
(Continued)

Lesson 9

Total area of Room A	_____	square feet
Total area of Room B	_____	square feet
Total area of Room C	_____	square feet
Total area of Room D	_____	square feet
Total area of Room E	_____	square feet

_____ square feet = Total area of
inside of
house

Total area of inside of house = _____ square feet
+ 300 = _____ gallons.
_____ gallons x \$5 = _____ cost of painting inside
of house.

DETERMINING THE COST OF PAINTING THE INSIDE OF A HOUSE

INSTRUCTOR'S ANSWER KEY

Directions: Find the area of each room to be painted. Total these areas and divide by 300, which is the area of a gallon of paint will cover. Multiply this number by \$5. This will give you the cost of painting the inside of your house.

Room A (Bedroom)

Wall (one)	8' x 12' =	<u>96</u>	square feet
------------	------------	-----------	-------------

Wall (two)	8' x 12' =	<u>96</u>	square feet
------------	------------	-----------	-------------

Wall (three)	8' x 15' =	<u>120</u>	square feet
--------------	------------	------------	-------------

Wall (four)	8' x 15' =	<u>120</u>	square feet
-------------	------------	------------	-------------

Ceiling (five)	12' x 15' =	<u>180</u>	square feet
----------------	-------------	------------	-------------

<u>612</u>	square feet = Total area of Room A
------------	------------------------------------

Room B (Bedroom)

Wall (one)	8' x 10' =	<u>80</u>	square feet
------------	------------	-----------	-------------

Wall (two)	8' x 10' =	<u>80</u>	square feet
------------	------------	-----------	-------------

Wall (three)	8' x 11' =	<u>88</u>	square feet
--------------	------------	-----------	-------------

Wall (four)	8' x 11' =	<u>88</u>	square feet
-------------	------------	-----------	-------------

Ceiling (five)	10' x 15' =	<u>110</u>	square feet
----------------	-------------	------------	-------------

<u>446</u>	square feet = Total area of Room B
------------	------------------------------------

DETERMINING THE COST OF PAINTING THE INSIDE OF A HOUSE
INSTRUCTOR'S ANSWER KEY
(Continued)

<u>Room C (Kitchen)</u>		<u>AREA</u>	
Wall (one)	8' x 13' =	<u>104</u>	square feet
Wall (two)	8' x 13' =	<u>104</u>	square feet
Wall (three)	8' x 11' =	<u>88</u>	square feet
Wall (four)	8' x 11' =	<u>88</u>	square feet
Ceiling (five)	11' x 13' =	<u>143</u>	square feet
		<u>527</u>	square feet = Total area of Room C

<u>Room D (Bathroom)</u>		<u>AREA</u>	
Wall (one)	8' x 10' =	<u>80</u>	square feet
Wall (two)	8' x 10' =	<u>80</u>	square feet
Wall (three)	8' x 5' =	<u>40</u>	square feet
Wall (four)	8' x 5' =	<u>40</u>	square feet
Ceiling (five)	5' x 10' =	<u>50</u>	square feet
		<u>290</u>	square feet = Total area of Room D

<u>Room E (Living Room)</u>		<u>AREA</u>	
Wall (one)	8' x 15' =	<u>120</u>	square feet
Wall (two)	8' x 15' =	<u>120</u>	square feet
Wall (three)	8' x 17' =	<u>136</u>	square feet
Wall (four)	8' x 17' =	<u>136</u>	square feet
Ceiling (five)	15' x 17' =	<u>255</u>	square feet
		<u>767</u>	square feet = Total area of Room E

DETERMINING THE COST OF PAINTING THE INSIDE OF A HOUSE
 INSTRUCTOR'S ANSWER KEY
 (Continued)

Total area of Room A	<u>612</u>	square feet
Total area of Room B	<u>446</u>	square feet
Total area of Room C	<u>527</u>	square feet
Total area of Room D	<u>290</u>	square feet
Total area of Room E	<u>767</u>	square feet

2,642 square feet = Total

Total area of inside of house = 2,642 square feet
 $\div 300 = 8 \frac{5}{6} = 9$ gallons.
9 gallons \times \$5 = \$45 cost of painting inside
 of house.

PANELING WALLS

LESSON TEN

CONCEPTS

Determining the cost of paneling walls in a house

PERFORMANCE OBJECTIVE

Given a home improvement project, the learner will determine the cost of paneling the walls using 4' x 8' panels.

LESSON TIME

40 minutes

PREREQUISITE KNOWLEDGE

Understanding of area

Understanding of multiplication and division of whole numbers, fractions, and decimals

RESOURCES REQUIRED

<u>FOUND WITHIN LESSON</u>	<u>ACQUIRED BY INSTRUCTOR</u>
Worksheet master: <i>Paneling Walls</i>	
Assessment item	

INSTRUCTOR PREPARATION TASKS

Draw on the chalkboard to a one-half reduced scale a 4' x 8' panel (rectangle)

4'

8'

Duplicate the following items for each learner:

1. *Paneling Walls*
2. Assessment item

INSTRUCTIONAL PROCEDURES

INTRODUCTION

In the previous lesson experiences were provided to help the learners determine the area and the cost of painting the inside of a house.

The purpose of this activity is for the learners to determine the area and the cost of paneling walls in a house. This lesson is another that is related to home improvements and maintenance. The learners will be involved in a discussion and completion of a worksheet.

Explain to the learners that in the previous lesson costs were figured for painting walls. Ask the

learners if they can think of other materials that may be used to improve the looks of walls.

Possible responses:

1. Wallpaper
2. Burlap coverings
3. Mirror tiles
4. Murals or pictures
5. Plaster
6. ~~Full wall drapes or curtains~~

TASKS

Inform the learners that in this lesson they are going to determine the cost of paneling walls in the house they have bought.

Ask the learners if anyone knows what is meant by paneling and what it is used for.

Desired response:

Yes. Paneling comes in big sheets and is put on walls.

Tell the learners that wall paneling is used to make walls look very nice and comes in large rectangular 4' x 8' sheets. Most wall panels are made of wood or a material that looks like wood. In addition to looking nice, the panels don't need to be painted.

Refer to the reduced 4' x 8' panel on the chalkboard. Explain to the learners that most ceilings are eight feet or less in height so that when a wall panel is installed it is placed against the wall in an upright position. This means that the eight feet length points toward the ceiling and the four feet side goes along the floor.

Tell the learners they will get a worksheet to determine the cost of paneling rooms in a house. Inform the learners that everyone will do the first problem on the worksheet together.

Distribute the worksheet *Paneling Walls* and ask the learners to do the following:

1. Find the perimeter of the room by adding the length of each wall in the room.
2. Divide the perimeter by four to determine the number of panels needed for the room.
3. Multiply the number of panels by five dollars to determine the cost of paneling rooms.

Tell the learners to complete the remaining problems on the worksheet.

Circulate among the learners and provide assistance when needed.

When the learners have completed their worksheets, collect, correct and return them.

SUMMARY

Have the learners determine the cost of paneling one wall in their classroom.

Re-emphasize to the learners that wood paneling of walls is one way to make walls look nice.

Tell the learners that most of the home improvement projects that they have undertaken require some buying of products. In the next lesson experiences will be provided for the learners to compare credit buying and cash buying.

ASSESSMENT PROCEDURES

DESCRIPTION

A multiple-choice item is used to assess achievement of the objective.

DIRECTIONS

The learners will read the item and record their responses. Assistance with vocabulary may be given by the instructor.

KEY

b

Name _____

Date _____

Lesson 10

ASSESSMENT ITEM

You have decided to use 4' x 8' sheets of wall paneling to decorate a room. Each of the four walls of the room measure 8' high and 12' wide. The paneling costs \$6 a sheet. What is the cost of the paneling for this room?

- ☐ a. \$ 60
- ☐ b. \$ 72
- ☐ c. \$ 96
- ☐ d. \$116

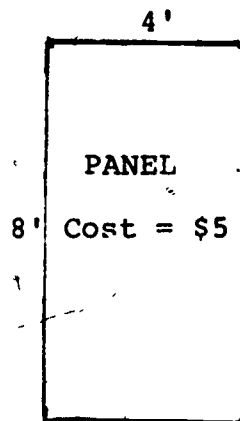
Name _____

Date _____

Lesson 10

PANELING WALLS

Directions: Find the number of 4' x 8' panels need to cover each room. To do this find the perimeter of the room and divide by four. Multiply this number by \$5. (the cost of each panel) to determine the cost of paneling the room.



1. Room A

Wall (one)	- 10'	P = S + S + S + S
Wall (two)	- 12'	P = 10' + 12' + 10' + 12'
Wall (three)	- 10'	P = _____
Wall (four)	- 12'	P = _____ + 4 = _____ panels

Cost of Paneling _____ x \$5 = \$ _____

2. Room B

Wall (one)	- 16'	P = S + S + S + S
Wall (two)	- 12'	P = 16' + 12' + 16' + 12'
Wall (three)	- 16'	P = _____
Wall (four)	- 12'	P = _____ ÷ 4 = _____ panels

Cost of Paneling _____ x \$5 = \$ _____

3. Room C

Wall (one)	- 10'	P = S + S + S + S
Wall (two)	- 14'	P = 10' + 14' + 10' + 14'
Wall (three)	- 10'	P = _____
Wall (four)	- 14'	P = _____ ÷ 4 = _____ panels

Cost of Paneling _____ x \$5 = \$ _____

Name _____

PANELING WALLS
(Continued)

Lesson 10

4. Room D
- | | | |
|--------------|-------|-------------------------------------|
| Wall (one) | - 11' | $P = S + S + S + S$ |
| Wall (two) | - 19' | $P = 11' + 19' + 11' + 19'$ |
| Wall (three) | - 11' | $P =$ _____ |
| Wall (four) | - 19' | $P =$ _____ $\div 4 =$ _____ panels |

Cost of Paneling _____ x \$5 = \$ _____

5. Room E
- | | | |
|--------------|-------|-------------------------------------|
| Wall (one) | - 9' | $P = S + S + S + S$ |
| Wall (two) | - 11' | $P = 9' + 11' + 9' + 11'$ |
| Wall (three) | - 9' | $P =$ _____ |
| Wall (four) | - 11' | $P =$ _____ $\div 4 =$ _____ panels |

Cost of Paneling _____ x \$5 = \$ _____

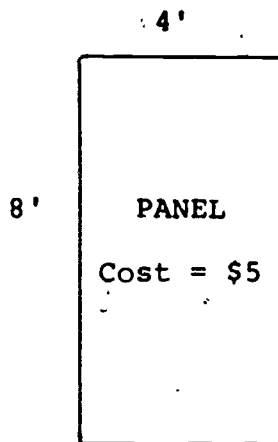
6. Room F
- | | | |
|--------------|-------|-------------------------------------|
| Wall (one) | - 13' | $P = S + S + S + S$ |
| Wall (two) | - 13' | $P = 13' + 13' + 13' + 13'$ |
| Wall (three) | - 13' | $P =$ _____ |
| Wall (four) | - 13' | $P =$ _____ $\div 4 =$ _____ panels |

Cost of Paneling _____ x \$5 = \$ _____

PANELING WALLS

INSTRUCTOR'S ANSWER KEY

Directions: Find the number of 4' x 8' panels need to cover each room. To do this, find the perimeter of the room and divide by four. Multiply this number by \$5 (the cost of each panel) to determine the cost of paneling the room.



1. Room A
- | | | |
|--------------|-------|---|
| Wall (one) | - 10' | $P = S + S + S + S$ |
| Wall (two) | - 12' | $P = 10' + 12' + 10' + 12'$ |
| Wall (three) | - 10' | $P = 44'$ |
| Wall (four) | - 12' | $P = \underline{44'} + 4 = \underline{11}$ panels |

Cost of Paneling 11 x \$5 = \$55

2. Room B
- | | | |
|--------------|-------|---|
| Wall (one) | - 16' | $P = S + S + S + S$ |
| Wall (two) | - 12' | $P = 16' + 12' + 16' + 12'$ |
| Wall (three) | - 16' | $P = 56'$ |
| Wall (four) | - 12' | $P = \underline{56'} + 4 = \underline{14}$ panels |

Cost of Paneling 14 x \$5 = \$70

3. Room C
- | | | |
|--------------|-------|---|
| Wall (one) | - 10' | $P = S + S + S + S$ |
| Wall (two) | - 14' | $P = 10' + 14' + 10' + 14'$ |
| Wall (three) | - 10' | $P = 48'$ |
| Wall (four) | - 14' | $P = \underline{48'} + 4 = \underline{12}$ panels |

Cost of Paneling 12 x \$5 = \$60

PANELING WALLS
INSTRUCTOR'S ANSWER KEY
(Continued)

Lesson 10

4. Room D Wall (one) - 11' $P = S + S + S + S$
 Wall (two) - 19' $P = 11' + 19' + 11' + 19'$
 Wall (three) - 11' $P = 60'$
 Wall (four) - 19' $P = \underline{60} + 4 = \underline{15}$ panels

Cost of Paneling 15 x \$5 = \$75

5. Room E Wall (one) - 9' $P = S + S + S + S$
 Wall (two) - 11' $P = 9' + 11' + 9' + 11'$
 Wall (three) - 9' $P = 40'$
 Wall (four) - 11' $P = \underline{40} + 4 = \underline{10}$ panels

Cost of Paneling 10 x \$5 = \$50

6. Room F Wall (one) - 13' $P = S + S + S + S$
 Wall (two) - 13' $P = 13' + 13' + 13' + 13'$
 Wall (three) - 13' $P = 52'$
 Wall (four) - 13' $P = \underline{52} + 4 = \underline{13}$ panels

Cost of Paneling 13 x \$5 = \$65

CREDIT BUYING OR CASH BUYING

LESSON ELEVEN

CONCEPTS

Credit buying versus paying cash for an item

PERFORMANCE OBJECTIVE

Given the task of purchasing a product, the learner will compare credit buying to paying cash for the item.

LESSON TIME

45 minutes

NEW VOCABULARY

Credit buying - paying for products over a period of months or years and paying a certain amount extra for taking that time to pay for it

Interest - the money paid for the use of money borrowed and/or for credit buying

RESOURCES REQUIRED

FOUND WITHIN LESSON	ACQUIRED BY INSTRUCTOR
Transparency master: <i>Easy Money</i>	
Worksheet master: <i>Credit or Cash</i>	
Assessment item	

INSTRUCTOR PREPARATION TASKS

Prepare the transparency *Easy Money*.

Duplicate the following items for each learner:

1. Credit or Cash
2. Assessment item

INSTRUCTIONAL PROCEDURES

INTRODUCTION

In the previous lesson experiences were provided to help the learners determine the cost of paneling walls in a house. The purpose of this lesson is for the learners to compare credit buying and paying cash for things they have bought. The learners will respond to some phrases related to credit buying and compute the difference between paying cash for a product and buying on a time payment plan.

Ask the learners to name some products for which people almost always pay cash.

Possible responses:

1. Candy bars
2. Gum
3. Greeting cards
4. Haircuts
5. Milk

Ask the learners to name some products for which people sometimes pay over a period of time.

Possible responses:

1. Trailers
2. Boats
3. Pianos
4. TV sets
5. Furniture

TASKS

Inform the learners that they have had many lessons related to buying products and maintaining homes. This lesson will show the learners that it costs money to

pay for products over a period of time. Tell the learners that many people pay cash for products they buy while others pay for the products over a period of months or years. This is called credit buying. Usually people buy products on credit when they do not have the cash or money to pay for them. Inform the learners that almost any type of product may be bought on credit. Show the transparency Easy Money to the learners. Ask the various learners to read the phrases and explain what they mean.

Desired responses:

1. This means that you can write a check even if you do not have enough money in your account. The bank will loan you money and add it to your checking account.
2. You can buy something now and pay later or pay over a period of time.
3. You can buy now, and you will not start making payments until next year.
4. You can buy things and charge them over a period of time with a charge card.
5. Convenient terms means that a person may pay for a product with almost any type of payment that suits him.
6. One-hundred percent financing means you do not have to pay any money down when you buy the product.
7. This means you can pay for the product over a forty-two month time period.
8. You pay nothing down and make payments that suit you.
9. You pay \$10 down and \$10 a month until full payment for the product is made.

Inform the learners that all of these phrases encourage people to buy products on credit. Ask the learners why store owners want people to buy products over a period of time instead of paying cash.

Desired response:

The store owners charge you extra when you buy products on credit or over a period of time.

Tell the learners that other places such as banks, savings and loan companies, and credit unions provide this service of loaning money to people who cannot or do not wish to pay cash for products. They in turn, charge a fee for this service. The amount that is charged to the buyer for credit buying depends on such things as the amount of money borrowed, the length of time it takes the buyer to pay the money back, and the loan charges or rates of the loaner. The charges for loans vary from one place to another.

Distribute the worksheets *Credit or Cash* to the learners. Inform the learners that they are to find the cost or charge for paying for each item over a period of time instead of paying cash. This is done by subtracting the cash price from the time payment price. Circulate among the learners and provide assistance when needed as the learners complete their worksheets.

After the worksheets have been completed, ask the learners if it is better to pay cash or buy products over a period of time?

Desired response:

It is better to pay cash for products.

Ask the learners why it is better to pay cash?

Desired response:

You do not have to pay extra money for a product when you pay cash.

Ask the learners what happens if people cannot make the time payments on a product they buy.

Desired response:

They may have to give the item or product back to the store.

Tell the learners that sometimes people take on more time payments than they can afford. If this occurs, they may lose the products they have bought.

SUMMARY

Re-emphasize to the learners that it costs more money to pay for an item over a period of time. Therefore, it is usually better to save money and pay cash for the product. Mention to the learners that most people buy a house or a car over a period of time because they do not have large amounts of cash on hand.

Review with the learners that this unit attempted to develop a better understanding of things to consider when buying products. A section of the unit provided experiences in developing mathematical computational skills related to buying home products and improvements. Hopefully, this unit is one that has provided worthwhile experiences for the learners.

ASSESSMENT PROCEDURES

DESCRIPTION

A multiple-choice item is used to assess achievement of the objective.

DIRECTIONS

The learners will read the item and record their responses. Assistance with vocabulary may be given by the instructor.

KEY

b

Name _____

Date _____

Lesson 11

ASSESSMENT ITEM

You are going to buy a ten-speed bicycle that sells for \$100 cash. If it is paid for over a 12 month period of time (credit buying), the cost will be \$118. What is the charge for paying for the bicycle over a 12-month period?

_____ a. \$ 9

_____ b. \$18

_____ c. \$27

_____ d. \$36

Name _____

Date _____

CREDIT OR CASH

Lesson 11

Directions: Find the charge for buying an item over a period of time instead of paying cash. This is done by subtracting the cash price from the time payment price.

Item Bought	Cash Price	Time Payment Price	Charge for Time Payment	Length of Time Payments
House	\$15,000	\$32,000.00		30 years
Car	3,000	3,600.00		3 years
Furniture	700	816.00		2 years
Clothes	100	118.00		1 year
Fence	600	708.00		2 years
Patio	300	336.00		1 year
Wood Paneling	75	83.20		1 year
Bicycle	100	118.00		1 year
Motor Bike	200	224.00		1 year
Color T.V.	500	590.00		2 years
Carpeting	750	885.00		2 years
Vacuum cleaner	150	172.50		1 year
Tiles (floor)	60	67.20		1 year
Piano	500	590.00		2 years

1. What was the time payment charge for buying the house over a thirty-year period? _____
2. What was the time payment charge for buying the car over a three-year period? _____
3. What was the time payment charge for buying the piano over a two-year period? _____

CREDIT OR CASH

Lesson 11

INSTRUCTOR ANSWER KEY

Directions: Find the charge for buying an item over a period of time instead of paying cash. This is done by subtracting the cash price from the time payment price.

Item Bought	Cash Price	Time Payment Price	Charge for Time Payment	Length of Time Payments
House	\$15,000	\$32,000.00	\$17,000.00	30 years
Car	3,000	3,600.00	600.00	3 years
Furniture	700	816.00	116.00	2 years
Clothes	100	118.00	18.00	1 year
Fence	600	708.00	108.00	2 years
Patio	300	336.00	36.00	1 year
Wood Paneling	75	83.20	8.20	1 year
Bicycle	100	118.00	18.00	1 year
Motor Bike	200	224.00	24.00	1 year
Color T.V.	500	590.00	90.00	2 years
Carpeting	750	885.00	135.00	2 years
Vacuum Cleaner	150	172.50	22.50	1 year
Tiles (floor)	60	67.20	7.20	1 year
Piano	500	590.00	90.00	2 years

1. What was the time payment charge for buying the house over a thirty-year period? \$17,000
2. What was the time payment charge for buying the car over a three-year period? \$600
3. What was the time payment charge for buying the piano over a two-year period? \$90

\$\$\$ EASY MONEY???

★ With Ready Reserve, just write a check and you've got a loan

★ Buy now - Pay later

★ Buy now, no payments until January of next year

★ Your Charge Card (just like money)

★ Convenient Terms

★ 100 % Financing

★ Up to 42 months to pay

★ No money down - easy terms

★ \$10⁰⁰ down and \$10⁰⁰ a month